

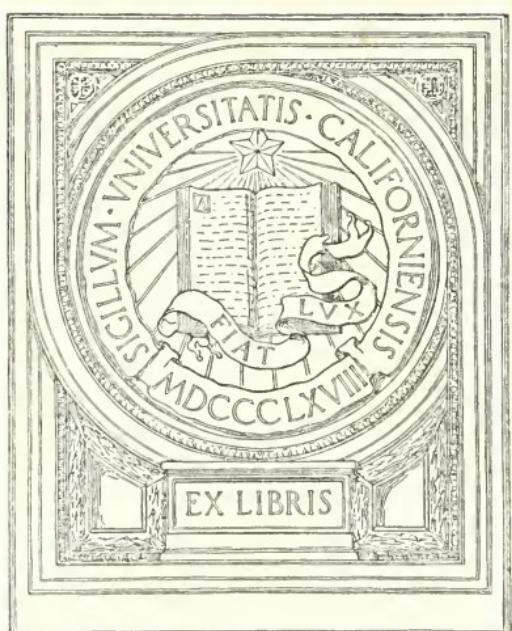
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THE PACIFIC SCHOOL JOURNAL.

EDITED BY ALBERT LYSER.

VOLUME VI.



SAN FRANCISCO, CAL.

THE SCHOOL JOURNAL PUBLISHING COMPANY, PROPRIETORS,
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No. 1

FRACTIONS FOR BEGINNERS.*

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WHEN a unit or any quantity whatever, regarded as a whole, is divided into any number of equal parts, one or more of those parts will make what is called a fraction of that unit or quantity.

If, for example, an acre of land be divided into 6 equal parts, and 5 of these parts be taken as a garden, then the extent of the garden is said to be five-sixths of an acre. This is expressed by the fraction $\frac{5}{6}$ Ac. In a similar way we might (as already seen in *division*) find $\frac{5}{6}$ of a given sum of money, or $\frac{5}{6}$ of a given weight, etc.

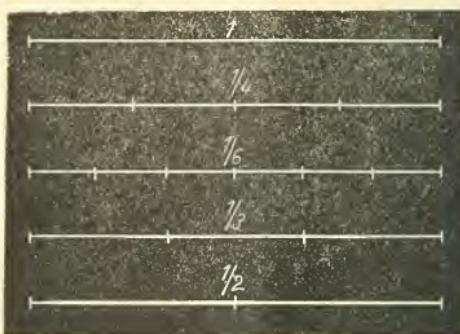
The number (6) below the separating line determines the *name* given to the parts (sixths), and hence is called the Denominator; the number above it (5) *counts* the parts which are taken to make up the fraction, and hence is called the Numerator.

Besides giving a name to the fraction, the denominator shows into how many equal parts the given unit or quantity is divided; and, by doing so, determines the value of each of these parts.

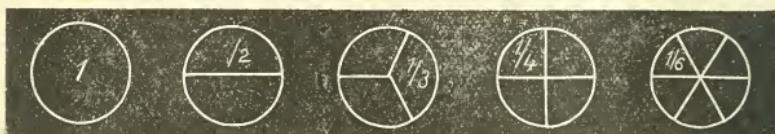
* The following extracts are taken from advanced sheets of Mr. Byrne's new work, "Arithmetic and Practical Mathematics, Illustrated and Applied." They will be found to contain many pertinent and valuable suggestive hints as to the mode of utilizing the object system in arithmetic, and giving practical instruction to primary classes. The intelligent teacher will easily supply the parts omitted. The readers of the SCHOOL JOURNAL will hereafter have an opportunity of seeing that the author removes most of the other difficulties of arithmetic and practical mathematics as effectually as he here disposes of the mysteries with which the treatment of fractions is too often surrounded.

It will be observed that, so long as the unit remains unchanged, each fractional part decreases when the denominator increases; and, conversely, increases when the denominator decreases. This may be easily illustrated by taking a line as the unit from which the fraction is obtained.

- One mile.....
- Fourths of a mile.....
- Sixths of a mile.....
- Thirds of a mile.....
- Halves of a mile.....



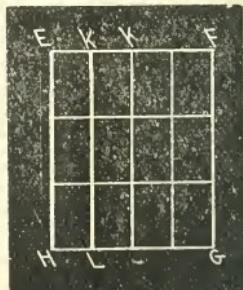
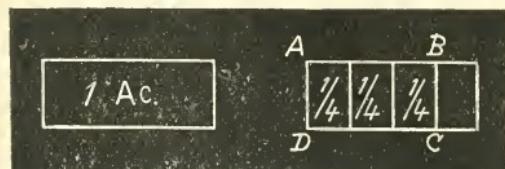
Units of any other kinds would answer almost equally well; e. g.,



We might illustrate the same principle by operating on a numerical quantity, suppose 24 acres or \$1,500. If a farm consist of 24 acres, $\frac{1}{2}$ of the farm would be 12 acres, $\frac{1}{3}$ would be 8 acres, $\frac{1}{4}$ would be 6 acres, and $\frac{1}{6}$ would be 4 acres, the quantity of land decreasing as the denominator increases. If the farm were worth \$1,500, $\frac{1}{6}$ of it would be worth \$250, $\frac{1}{4}$ would be worth \$375, and so on, the value of the fractional part increasing as the denominator decreases.

In the foregoing view of a fraction, the unit is taken as the starting point, and the fraction is regarded as being made up of a number of equal parts, which number is expressed by the numerator. We may, however, with some advantage, take another view of it.

For example, $\frac{3}{4}$ of an acre would, according to the first view, be 3 times $\frac{1}{4}$ of an acre, and might be represented by ABCD.



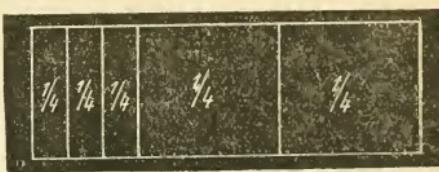
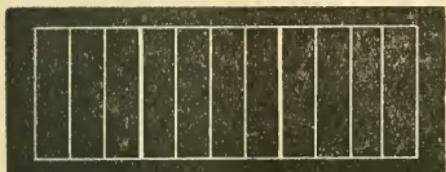
If, now, EFGH be equal to 3 such acres, and be divided into 4 equal parts, one of these parts, as EKLH, will be equal to ABCD, or to $\frac{3}{4}$ of an acre. That is, $\frac{3}{4}$ Ac. = $\frac{1}{4}$ Ac. \times 3 = 3 Ac. \div .

Hence, a fraction may be regarded as the quotient, or equal to the quotient obtained by dividing the denominator into the numerator. The line of separation between these terms (as in $\frac{3}{4}$) is really a sign of division, as much so, indeed, as \div . This fact places the terms of a fraction in their true relation with respect to each other, namely, that the denominator is a *divisor*, and the numerator a *dividend*; and consequently, whatever properties belong to the divisor and dividend in division, belong equally to the denominator and numerator of a fraction. If this relation be kept in mind, little difficulty will be found in understanding the rules usually given for managing fractions. For the benefit, however, of the inexperienced, we may familiarly explain the leading principles and operations in these rules.

IMPROPER FRACTIONS.

The primary idea of a fraction being a broken part of 1, the name *improper* is sometimes applied to a fraction whose numerator is not less than its denominator, or (what is the same thing) whose value is not less than 1.

Taking, for instance, $\frac{11}{4}$, and considering that every 4 fourths contained in it make a unit, we may, without altering the value of the fraction, change its form into $2\frac{3}{4}$. In doing so, we merely perform the operation indicated by the separating line in $\frac{11}{4}$.



$$\frac{11}{4} = 1 + 1 + \frac{3}{4} = 2\frac{3}{4}.$$

Hence, an improper fraction is converted into a whole or mixed number by dividing the denominator into the numerator. Conversely, a mixed number is changed into an improper fraction by multiplying the whole number by the denominator, adding the numerator to the product, and taking the sum as the numerator of the improper fraction, the given denominator remaining unchanged.

H. J. BYRNE.

LET us live for the children.

IMMEMORIAL custom is transcendent law.—*Menu*.

WHEN a new book comes out, I read an old one.—*Rogers*.

Is there no chemistry to transform a hoodlum into a useful citizen?

THE Chinaman will surely possess the country, if he is the one fact upon which the country rests.

CUNNING has effect from the credulity of others, rather than from the ability of those who are cunning. It requires no extraordinary talents to lie and deceive.—*Johnson*.

ENGLISH COMPOSITION.

[A Paper Read before the Alameda County Teachers' Institute, October 21st, 1881.]

THE road to success in English Composition, whether for teacher or scholar, is by no means short or direct. In this respect it differs widely from other branches which enter into our school curriculum. In directing the course of geographical and historical studies, we have maps and charts innumerable, which serve as unerring landmarks and guide-posts on the way. The objects of natural science are tangible realities, interesting in themselves, and easy of access. The path of mathematical science is straight and narrow. Its course is, indeed, long and steep. It leads through no flowery ways; no rills from Helicon flow beside it; the groves of Parnassus rise on other slopes. Yet, one need not mistake the path; for, toilsome though it be, it stretches straight onward, till the human mind falters in the effort to follow its remote leadings, reaching out to the infinite distances beyond the stars.

But when we begin to study the uses and beauties of our own rich and flexible language, we set out upon no regular and well-defined course. A hundred alluring ways open on our right hand and upon our left, each with its own peculiar charm, each leading to some mine of treasure that well repays the searching. We are like the primeval pair in Eden, only there is for us no forbidden tree: we may wander where we will, and pluck fruits of knowledge from every bough.

It is obviously impossible, from the nature and scope of the subject, to give it, in the brief time which this occasion offers, any treatment which will not fall far short of my own ideal and the demands of the theme itself. I purpose only to offer a few practical methods which I have found useful, and can hardly hope that *they* will be new to any who hear me.

I can but think that we in California are in the van of the educational army; for I do not believe that could be said of any school in the State which the editor of the *New England Journal of Education* relates. I am *sure* it never could be true in Alameda County. He says, "We have heard within six months an astonishing recitation, in which a class which had never analyzed a sentence, parsed a line, or written a composition was carried triumphantly through a *memoriter* examination covering the principal contents of a school treatise on grammar." Benighted land! One feels tempted to send some California missionary to teach them the better way. It is gratifying to see what increased and increasing attention is being paid by all English-speaking scholars to the study of their own tongue. The teaching of language in the schools of the past has for the most part been so unphilosophical, that we wonder it has so long been endured. We have been attempting to teach technical grammar—the most metaphysical of studies to children whose reasoning powers were only in their budding stage—thus tacitly avowing the opinion that grammar, with its varied rules of syntax, was first brought to a state of perfection, and then human language was framed in accordance with this complex system. Our later educators have seen, that in this study also

the inductive method is the only true and logical one, and hence has come the revolution in language teaching. We are wisely ceasing our efforts to teach young children the *science* of grammar, and are rather training them in the *art* of speech. This acquired, the maturing mind easily grasps the principles of the science. Indeed, so many improved methods in language teaching have been introduced, that I am tempted to offer as my only contribution to these exercises one of the stereotyped addresses of E. E. Hale's unlucky "Double": "There has been so much said, and, on the whole, so well said, that I will not longer occupy the time."

The very word "composition" has heretofore been a bugbear to the average school boy or girl. I am not sure but one way to remove this natural dislike would be to drop the name entirely, and embrace in the more familiar and better understood term "language lesson" all our work in that line. I have more than once seen on our pupils' faces the flash with which a new idea irradiates them, when the discovery was made that the word "composition" applied just as fitly to a pudding, a loaf of bread, or a physician's prescription, as to the product of their own tongues or pens. When the child once sees that he has been practicing oral composition ever since he could talk, and that oral and written language are identical, one appealing to the sense of hearing and the other to that of sight, he will gain new confidence in his own powers.

For a larger part of the school course the teacher must furnish the thought material of which the pupil is to compose his sentences. Occasionally we meet an exceptional genius, who is not afraid to give form to his own thoughts. But, while children are never weary of asking questions, they are chary of making many affirmations as to the workings of their own minds; in fact, they hardly learn till they are beyond our influence how to watch and note the workings of that wonderous complex thing we call mind. As has been said by some one, "they awake every morning with the impression that everything is an open question." Long, however, before the reasoning faculties are developed, they may learn to use language as applied to objects of perception with great facility. But *not*, let me say emphatically, by writing a composition twice in a term, or once a month, or once a week. A well-known and eminent California artist, when consulted as to the best methods of learning his art, said: "If you want to learn to paint, the only way to do it is, paint, and keep painting. Taking lessons won't make an artist of you; you must just *paint*."

So with our subject. If you desire to excel in writing, write, and keep writing every day, all the year through. In the "Records of a School," it is related of Alcott, that he caused all his pupils to keep a journal, daily entries in which formed part of the school work of the youngest pupil who could write. He did in this a good and improving thing; but made, it would seem, a radical error, inasmuch as he set for these infant minds the task of diving to the depths of their self-consciousness, analyzing their motives of action, searching the springs of their emotions, and recording in their journals the results of their infant introspections. But the Concord philosopher's school-teaching was over before the Harry Wadsworth motto was formulated, and we were

bidden "to look outward, and not inward." Outward, and not inward, the tyro in composition certainly must look for his subjects, and the more simple and familiar these subjects, the better suited to his use.

KATE B. FISHER.

Oakland High School.

THE GIVER AND THE TAKER.

[The following is an attempt to versify a literal translation of a poem by the Hindoo writer Tineevaluva, who lived, it is supposed, in the third century of our era. He was remarkable for his hatred of idolatry and caste, and for his almost Christian conception of God and human duty.]

WHO gives what others may not see,
Nor counts on favor, fame, or praise,
Shall find his smallest gift outweighs
The burden of the mighty sea.

Who gives to whom hath naught been given,
His gift in need, though small indeed
As is the grass blade's wind-blown seed,
Is large as earth and rich as heaven.

Forget thou not, O man! to whom
A gift shall fall, while yet on earth,
Yea, even to thy sevenfold birth,
Revive it in the lives to come!

Who, brooding, keeps a wrong in thought,
Sins much; but greater sin is his
Who, fed and clothed with kindnesses,
Shall count the holy aims as naught.

For he who breaks all laws may still
In Sivam's mercy be forgiven:
But none can save in earth or heaven
The wretch who answers good with ill.

JOHN G. WHITTIER.

AT ELBERON.

[This poem was written by Mr. D. L. Paine, the leading editor of the *Indianapolis News*, in addition to his other editorial duties, in time for the next issue of his paper after learning of the President's death. It is one of the best of the many poetic memorials to our illustrious dead.]

IF, through the portals opening toward the light,
E'er walked a man in armor, clean and bright,
That man, untrammelled, outward passed last night
From Elberon.

Firm lipped, clear-eyed, clean-souled, he met his fate,
Leaving behind no rancor and no hate,
And strode, high-browed, undaunted through the gate
At Elberon.

Despair not, stricken people, South or North,
Moaning and owning his transcendent worth;
Hope only turns her face to lead him forth
From Elberon.

In deeds resplendent, and in honor bright,
In high example shining as the light,
He lives immortal—he who died last night
At Elberon.

GARFIELD'S FAVORITE HYMN.

HO, reapers of life's harvest,
Why stand with rusty blade,
Until the night draws round thee,
And the day begins to fade ?
Why stand ye idle, waiting
For reapers more to come ?
The golden morn is passing,
Why sit ye idle, dumb ?

Thrust in your sharpened sickle
And gather in the grain,
The night is fast approaching,
And soon will come again.
The Master calls for reapers,
And shall He call in vain ?
Shall sheaves lie there ungathered,
And waste upon the plain ?

Mount up the hights of wisdom,
And crush each error low;
Keep back no words of knowledge
That human hearts should know,
Be faithful to thy mission,
In service of thy Lord,
And then a golden chaplet
Shall be thy just reward.

GET READY FOR LIFE.—Where can I best use those faculties that are in my nature? Every day's work in the study and the class-room will be answering these questions, if the eye of the mind be turned with keen inspection in upon itself. Do not let ambition lead you. She is a grand leader when she leads you along the line of your natural faculties, but a most deceptive and disastrous one when she leads you in any other direction. Do not ask yourself, "What would I like to be?" but, "What am I able to be?" Many would like to be a Napoleon, and yet, with all the training they could get, would cut but a sorry figure at the head of the grand army. Or, they would like to be a Pitt or a Webster, and yet have not the first quality for statesmanship or the forum. Do not, I say, then, be led off by a groundless ambition. Be willing to be yourself, and do your own work; but whatever field of labor God intended you for, in that field do your best.—*W. C. Ginn, Syracuse, N. Y.*

MORAL INSTRUCTION IN OUR COMMON SCHOOLS.

I HEREBY offer you an article on Moral Instruction in Our Common Schools. I do this for two reasons: the first, because of the importance of the subject; the second, because of my surprise at a premium essay upon the same subject by a Mr. Euote in your July and August numbers, which I but lately read. I was surprised, not merely at the ideas expressed, but also at the language and wording of the essay; for I placed an interrogation point against no less than forty-three of its sentences, the meaning of which to me were doubtful. Let one example suffice.

In the July number, second page, is this utterance: "Of all sentient beings, we, in these closing decades of the nineteenth century, have brought to its highest logical conclusions the idea of duty." Well, what does the writer mean here by all this? by "sentient beings"? by "we"? by "highest logical conclusions"? etc. Does he here mean to include among sentient beings all men, brute animals, and angels? If he includes angels, he asserts what he does not know. If he includes brute animals, as pigs, tigers, whales, etc. surely pigs and tigers do not come to logical conclusions at all, and he should not include them. If he means only men, why does he not say so, and avoid using a word which signifies more than he designs? Then, if he meant men, does he mean only living men, or also the dead? If he means only living men, then not only is the "nineteenth century" superfluous, but it expresses a false idea in its connection with the word "we." If he meant the dead with the living, why did he not use words which express this; for surely "sentient beings" does not express such idea.

Moreover, what does he mean by "we"? Is it California teachers, or also California people? In either case, I cannot perceive that they are remarkable for any "highest logical conclusions of duty." Does he mean we Americans? Then, would he discriminate against Englishmen? or would he include the English, and how many more? By the way, is Euote an English name? I rather think he is an Englishman, and is trying to teach the young idea how to shoot straight from behind Herbert Spencer. His definition, on the same page, of "moral instruction," viz., the due explanation of our social relations, smacks strongly of Spencerism. But Spencer in morals is like Macaulay in poetry, only nine times lower. In prose, Macaulay is a tower of strength for thought, a marvel in the use of language; but in poetry, common. So Spencer and also Tyndall are wonderful in material sciences; but in morals and religion they are only as mud-turtles poking rough paddle-feet toward the sun in the heavens.

"Highest logical conclusions of duty!" Highest, how? Highest possible? The writer does not know this. Highest of all men in all ages? What single "conclusion," as proof of this, can he adduce?

But enough of criticism. I turn to the subject itself, that of "Moral Instruction in Our Common Schools." At once comes the "tug of war"; for to define the word "moral," is to open anew the contest of the ages. I will

take only the word "instruction." To instruct signifies "so to give evidence that the one taught shall perceive the truth and believe it." Therefore, for moral instruction in our common schools, the teacher must give the pupils evidence for morals, that they may perceive the truth in respect to them, and believe it. Assertions and commands, as to morals, are next to nothing in instruction.

Through the whole range of the branches taught in our schools, only the names of figures and letters, together with spelling and pronouncing, are accepted on mere assertion. For all else, evidence must be given the scholar. Hence, to give moral instruction, the evidence for morals must be given. How shall the teacher do this? I affirm he cannot give this evidence from nature alone; for through all animate nature, with no higher instruction, stealing, *i. e.*, taking by stealth, robbing, *i. e.*, taking by force, and killing, where weak competitors do not get out of the way, is the normal condition of sentient beings, hence the natural law of them. It is so with all insects, fishes, birds, quadrupeds, and with all men, unless where higher instruction comes in; and even then these acts are fearfully prevalent. Hence, the teachers cannot teach morals from nature alone; for there, all is the opposite.

So, also, he cannot bring in the conscience as evidence; for in no case does the conscience of one forbid an act, but what somewhere else the conscience of others will require it, and *vice versa*. The conscience is only as a weathercock to the breezes of education and belief.

Other proofs I must forego, and hasten to the conclusion, that evidence for morals must come from a higher source than nature, or it must have its origin either in a combination of the strong over the weak, so that "might shall make right," or else it must be in a religion, *i. e.*, in a regard to some rational controller of things, superior to visible nature. But the sentiment that "might makes right" is now openly maintained by none, though hosts act on this principle.

We come then to the fact, that to give moral instruction, *i. e.*, to give evidence for morals, there must be—must be—religious teaching, as the basis for such instruction. Hence, my conclusion, positive in my belief, is, that for moral instruction in our schools, we, as Americans, must introduce religious teaching there, and none be teachers who cannot teach religion as well as algebra, geography, history, or materialism.

Now, will our State and national Constitutions admit of this? Or, with our constitutional prohibition of an established religion, can religion be lawfully taught in our common schools? I answer, that lawfully, rationally, rightly, it can; for the word "established," in the Constitution, signifies, required by law to be believed and obeyed. At present, through all the branches taught in our common schools, not one is, in this sense, established. Not a pupil is commanded by law to believe and obey geography, algebra, history, or even spelling. All are by law unestablished, and our Constitution simply places religion in the same class with them, to remain unestablished. The European nations had established religion, and thus severely discriminated in its favor against other systems of truth. Our Constitution merely forbids this

discrimination, and opens the whole broad field of thought to equally free investigation. In its schools, our Government requires merely the study of facts and phenomena, in order that each pupil may for himself, as an independent thinker, come to some positive belief of his own, for which he can give evidence. He is only aided by the teacher, while he must investigate and come to some positive belief for his own.

In this manner, religion appears in the same category, and on equal footing with other systems of believed truths. Astrónomy, unestablished, is taught in our schools as the basis for the important arts of navigation, surveying, engineering, etc. So, also, ought religion, unestablished, to be taught in the same schools as the basis or evidence for the right understanding of morals—the most important of all things for the welfare of the people.

A nation without morals had better never have been. Existence is a curse without welfare; and a people's welfare is impossible, unless morals—unless truth, justice, and benevolence—characterize them in practice. If selfishness, partyism, sectional jealousy, and love of luxury are universal, then wretchedness, degradation, and death are sure to be the result. True morals are of the very first importance to a nation, and hence the duty of the Government to superintend the teaching of them, and insure that this be done aright. But this can be done only through some religion.

Therefore, as arithmetic, unestablished, is taught in our schools; as writing, unestablished, is there taught; as spelling, unestablished, is there taught; as history, algebra, agriculture, geology, astronomy, all unestablished, are there taught; so religion, unestablished, and morals, should there be taught.

Also, as in other branches, a text-book, unestablished by law, is used; so the Bible, or any other *positive*—not *negative*—text-book on religion may be there introduced and used, as the majority might choose. This course would exclude all infidelity, as a mere belief of negatives; it would overthrow all mere traditional and authoritative religions; quiet partyism and sectarian strife; open the way for truth, and result in the clearest rational and biblical belief, thus insuring the highest morals and greatest possible welfare to the people.

None need fear lest the results of such a measure would be injurious; for give truth an even chance with error, and it will always prevail. Those and those only who are more or less conscious to themselves of being in error may fear exposure by such a course; but every one confident of the truth on his side may well court such investigation, and rejoice in the confidence of victory. Certainly, true Bible-men have nothing to fear from this measure. Dare infidels allow such a free investigation of the subject in our schools? Bible-men dare challenge them to this scientific treatment.

Thus, in conclusion, I say, first, there is in our constitutional prohibition of an established religion no barriers to the introduction of the subject of religion into our common schools; nor, secondly, to the use there of the Bible, or the Khoran, or the Vedas, or any other book of positive religion as a text-book; nor, thirdly, to religion being freely taught on the basis of evidence, the same as geology; fourthly, this measure would be the broadening out of our American system in its completeness to include all subjects with the same freedom and

equality, where now it discriminates against and excludes subjects of the very highest importance to all men; fifth, the result would be a general harmony in the belief of the truth, the cessation of sectarian jealousy and strife, and a prevalence of true morals vastly beyond anything yet realized.

Such is the measure proposed for "Moral Instruction in Our Common Schools." It is presented by the writer in sincerest conviction of its truthfulness. Let every true lover of his country carefully consider the important subject.

For certain it is, that, if our republic is to be perpetuated, if our Union is to continue, if peace and prosperity for the people are to be insured, and if lasting progress in good is to be realized by us as a nation, the great principles of morality, the principles of truth, justice, and benevolence, must be clearly apprehended in the minds, be firmly chosen in the hearts, and be strictly observed in the practices, of our people. It is the duty of the Government to insure all this by proper "Moral Instruction in Our Common Schools."

S. V. BLAKESLEE.

A HOODLUM.

CHAPTER I.—HIS CAPTURE.

CARL BENSON felt contented with himself and the world as he stood before the window of a bookstore in San Francisco, looking at the volumes there displayed. He had just sold his honey, poultry, and other produce for a good price, and he was now trying to decide which of the many books he saw it was the most desirable to purchase. Feeling a slight pull at his coat, Carl turned around just in time to see a small boy running off with a bundle that he had taken from Carl's pocket. Pursuit and capture was the work of but a few seconds; and panting and scared, the boy tried to escape from the firm grasp which held him.

He was not at all a pleasing picture, this young thief. Ragged, dirty, and sullen he waited—half-frightened and half-defiant—to see what his captor would do with him. It was not the boy's first theft, nor the first time he had been caught in the act of stealing; but his age had pleaded for him, for he was hardly ten years old, and looked even younger; but now he felt that this man was not going to deal with him as the others had done.

"Come with me," said Carl, picking up the bundle the other had dropped.

"I never stole nothin' before," whined the young hoodlum. "I—I was hungry, and thought it was sunthin' good to eat. I'll never take nothin' ag'in if you'll lemme go this time," and he again tried to break loose.

"No. Come with me. I desire the pleasure of your company for an hour or two, and I think you would rather go to the hotel with me, than to the station-house with a policeman."

"All right, boss. If it's a first-class hotel, I'll go with yer," said the hoodlum, making an effort to appear unconcerned.

Holding the boy by the wrist, Carl led the way to the hotel where he was staying, and took the boy to his room. Turning the key in the lock, Carl seated himself in a chair, and gazed steadfastly at the boy whom he still kept hold of, and who now began to be frightened again; for it is the unusual that terrifies the ignorant, and the boy did not understand this kind of treatment.

Solitude, too, has a taming effect; and the boy, removed from the presence of those on the street, felt much less assurance than he had heretofore displayed.

"Your name," said Carl, briefly.

"Dodo," faltered the boy.

"H'm. I thought the dodo was extinct. Your other name."

"I hain't got any."

"Where do you live?"

"Most anywhere. You wouldn't be hard on a poor orphan boy that hain't got no mother, nor nobody to take care of him," and the boy put his free hand to his eyes, and vigorously tried to rub out a few tears. Carl was not deceived by this display; but continued to study the boy's face.

"There is energy there, misdirected though it has been," thought Carl. "Intelligence, too, of a certain kind. The features are not so bad, if they were clean, and had not that hard, suspicious look. Gray eyes, almost brown; a good mouth and chin; complexion doubtful, but shows tobacco plainly enough; hair soft and brown, and probably filled with vermin; nose shows character—I always did like a good nose—a pretty fair boy, naturally, but thickly veneered with hoodlum ways. I guess I can work that off, and I'm sure I need a boy at my ranch. Why not take this one, and give him a fair show for a better life?"

So Carl questioned the boy closely, and by sifting out the truth from the numerous falsehoods the boy told him, he made up his mind that the boy had no parents, nor any relatives who had a legal claim upon him. With plain, well-chosen words, Carl tried to show the boy the difference between the discomforts and perils of the life a street Arab led, and the comforts and chances to improve which a well-cared-for country boy had. While much that Carl said the boy could hardly understand, and did not more than half believe to be so, yet he was shrewd enough to perceive that here was a chance, at least, to escape from hunger and from persecution. His life upon the street had been one of kicks and cuffs, of dangerous pleasures and of trying fasts. Still, it was not the prospect of a good home that persuaded the boy to go with Carl Benson; but the promise of a good suit of clothes, of a ride upon the steamer, of a new four-bladed pocket-knife, and a hint of the nuts and berries to be had at the ranch for the trouble of picking.

"I'll get my ride and the clothes," thought the boy, "and I'll go with this softy till I get tired, and then I'll cut and run."

It was a clean, well-dressed boy who went on board the Santa Barbara steamer with Carl Benson. Good clothes and a clean skin are great moral

powers. The boy could not but feel, that the same conduct that looked all right in a ragged hoodlum was not quite the thing for a well-dressed one.

"I will change your name a little," Carl had told the boy. "'Dodo' is not a good name for a boy. You may have been called 'Donald,' so I shall call you 'Don.'"

"Call me anything you like, boss," replied the boy, "if you don't call me too late for grub."

Before they reached Santa Barbara, Carl found that, though his young charge did not know one letter from another, he had various accomplishments not laid down in any California course of study. His language lessons covered almost every word of slang, vulgarity, and profanity heard in the streets of San Francisco. If he could not read in one language, he could swear in half a dozen. He could lie with unblushing face, and with the most innocent look imaginable. That lying was wrong had never entered his head. The only question had been, was it advisable? In smoking and in chewing tobacco he was an adept; and the names and tastes of the various vile liquors sold in the dens of San Francisco were better known to him than to most men of thrice his age.

Carl literally had his hands full trying to restrain the overflowing spirits of the boy, who wanted to explore every part of the steamer, and climb into every forbidden place. The captain seized him as he was climbing into one of the small boats, and threatened to drop him overboard, if he did not keep where he belonged; for it was the third or fourth time he had been driven out of forbidden places.

The young hoodlum knew that the captain did not dare to execute his threat, and he sung out:

"All right, boss. Put one of them life 'servers on me, and let 'er drop."

He picked Carl's pockets, taking out all the small change, and then returned most of it for fear he should be found out. Like many another boy, it was not the crime he feared, but the punishment if he was discovered.

He offered to punch the heads of several of the other boy passengers for the small sum of five cents apiece; and, as they did not accept this generous proposition, he wanted to bet one of Carl's dimes that he could stand upon his head longer than any other of the crowd. This banter being refused, he called them a set of muffs; and saying that he had an engagement to play draw-poker with the captain, he walked away, and in a short time was found by Carl, bantering the barkeeper to shake dice for the drinks.

It was early in the morning when the steamer reached Santa Barbara, and Carl found the Spanish boy, who had been tending his ranch during his absence, waiting for him at the wharf. Carl loaded the two donkeys which the Spaniard had brought with the goods which had been purchased in the city, and placing Don upon one of the animals, they started towards Carl's ranch. Through the town of Santa Barbara, past the old Spanish Mission, up Mission Cañon and the Pedrogoso, winding up the steep mountain side along the dusty trail, until at last the tired travelers came in sight of Camp Comfort.

Here had been Carl Benson's home for the past four years. A pretty

white cottage, half covered with climbing vines, stood upon a bench of nearly level land; a stream of clear mountain water flowed past the door, through a patch of green alfalfa, where a cow and calf and a number of white Leghorn chickens were busy with their morning meal. Fruit trees of various kinds looked thrifty and homelike, while a patch of strawberry vines showed many a white blossom and not a few scarlet berries. In plain sight, at the foot of the mountain, lay the beautiful town of Santa Barbara, with the marvelously fertile valleys of Carpenteria and La Patera on either side. The Santa Barbara Channel looked like a spacious bay walled in by the chain of mountain islands. An ever-changing, ever-lovely picture, which even impressed its beauty upon the hoodlum, as the two travelers turned to look back and down to the valley below.

But the boy only gathered in a little of the marvelous beauty of the landscape; for it takes age and cultivation to rightly enjoy even the beauties of nature, and this fair scene was not so charming to the eye of the boy as the dull bricks of San Francisco would have been.

It was as though the boy had been taken to another world. A sense of loneliness almost amounting to awe oppressed him, and he drew nearer to Carl for companionship—for protection. Run away? He felt he should never dare to venture alone down that trail through the brush, peopled with unknown dangers, and leading through such awful solitudes.

It was the longest day the boy had ever known. He followed Carl about as the latter went among his bees, his chickens, and his trees; timidly stroked the head of the pet calf, curiously watched the milking of the cow, ate dinner and supper as if in a dream, and early in the evening suffered himself to be put to bed in a corner of the room upon one of Carl's spare mattresses.

But when the light was blown out, and Carl had gone to bed, the boy began to feel afraid. The open window, the sighing of the wind through the trees, and, above all, the sense of being so far away from the crowded city, made the boy tremble. A faint sob told Carl what was the matter, and he said kindly:

"Are you lonesome, Donald? Suppose you come here and sleep with me to-night."

The boy gladly accepted the invitation, and for the first time did not resist the protecting arm which Carl threw around him, nor did he object to the caressing hand that Carl laid upon his cheek.

It takes but little to win the heart of a boy. A few kind words, a look, a smile, a gentle pressure of the hand, a show of interest and of love, and the heart of the child warms in response. Those tokens of affection which a boy will resist if given before a third person, he will accept and return if bestowed when there is no other person to laugh at him.

The hoodlum had been so unused to any kindness, except of the rougher sort, that he could hardly believe that Carl's kind words were truly meant; and when Carl had finished telling him of some of the plans he intended to pursue, the boy asked, in a half-anxious, half-doubtful manner, "Isn't it *taffy* you are giving me?"

CINCINNATI AND CLEVELAND.

THE schools of Ohio have long had a good reputation. A visitor to the schools of its cities soon admits that they have not been overpraised. It is at once seen that in these cities education is not a mere skeleton of stiff bones, nor simply a well-shaped body consisting of bones and muscles; but a living organism, with pure blood and a well-toned nervous system. It is impossible to note the good points of a whole system in a short visit, so I contented myself with an examination of methods and results in the primary grades, and an investigation into the *distinguishing features* of the cities visited.

METHOD OF TEACHING HOW TO READ.—The Phonic method is used in both cities. In fact, to quote from Principal MacVicar of the Michigan State Normal School, “There is not a good school in the United States in which it is not used.” It is true the system is spoken of as the “Word and Phonic” method; but this same is utterly misleading. To be correctly understood, the name should be printed, “*Word and PHONIC*” method. For a few weeks the pupils are taught words, that they may from these words get the accurate sounds of the letter; because this is regarded as the best way of arriving at the phonic elements. But as soon as even two or three of these are taught, the pupils are set to work for themselves at *discovering* the names of words. Some teachers may wonder why, if this be so, the readers most recently published—Appleton’s and McGuffey’s New—claim to be adapted to the alphabetic, word, and phonic methods. The answer is easily given. The publishers of these books wish them to be used, not merely in cities, but rural districts, and the more excellent method has not yet been adopted by the “fossils”; so that it would be a business blunder for any publisher to claim that his books were suited only for one method.

Results in Reading. The results may be briefly stated: The pupils in the classes corresponding to our senior First Book classes will read anything in English that may be written or printed for them on the blackboard. These same pupils are familiar with the *diacritical* marks of Webster’s Dictionary, and will either change the pronunciation of any word, as these marks are altered by the teacher, or will themselves change the marking of a word to indicate different ways of pronouncing it. What they have been trained to do so thoroughly in pronouncing and accenting words, they can apply with uniform skill in emphasizing marked words in sentences.

MUSIC.—Pupils in the senior First Book class read music in the scale of C as easily as they read from the printed page in a reading book. They read new music matter even more readily than new reading matter. They sing new music, note by note, as rapidly as it can be written on the board. This is not all. Their ears have been cultivated so that they can call out the names of sounds sung by the teacher to the syllable *la*. Musical directors lead with the violin, and pupils, even in the junior classes, will listen to a line of music, and write down the notes on their slates. If in playing it again certain notes

are changed, they will make the corresponding changes on their slates. I heard a senior Third Book class sing a new piece with two parts, and do it well. In the upper grades of public schools three parts are sung, and in the high schools four parts.

There is a marked difference in the way music is taught in the two cities. In Cincinnati there are several special music teachers; in Cleveland the music is taught as it should be, by the regular teachers, under the direction of one musical director, who teaches the teachers, selects the pieces to be sung, and tests the results of the teaching. He may require those teachers who are not securing satisfactory results in music to come for instruction every Saturday. Skeptical theorists, who object to the teaching of music by the regular teachers, ought to visit Cleveland. If the purity, sweetness, and softness of tone, and the marked good taste exhibited by the pupils in singing, in addition to the other indications of proficiency already mentioned, do not satisfy them, they must be "blessed with firmly rooted prejudices."

DRAWING.—In both cities industrial drawing has been well taught for years. Tablets, instead of books, are used in Cincinnati. These consist of pads of drawing paper, the chief advantages claimed being cleanliness, facility for comparing results, and continued interest on the part of the pupil, who does not know, until he has finished one sheet, what he is likely to have to draw on the next.

In Cleveland, Mr. Aborn, the Supervisor of Drawing, has recently introduced a novel method of developing the tastes of the individual pupil in this subject. Pupils are told to draw whatever they choose, the teacher merely dealing with the results produced, commending earnest effort always, and making suggestions when proper to do so. Sometimes the drawing exercise takes the form of telling a story in pictures. In one room I saw a class relating "Mary Had a Little Lamb." Others were relating in hieroglyphics some of "Mother Goose's Melodies," or other favorite nursery gems. One lady took an excursion in imagination into the country with her pupils, and after they had conversed pleasantly for a few minutes about the various objects of interest to be seen there, she set them to work to produce on their slates in two minutes their ideals of the various things to be seen on a farm.

Whether we agree or not with Mr. Aborn's view, that this is the philosophical method of developing artistic talent, it must be acknowledged, that once a week such a lesson would be of great educational value. We should teach composition with the *pencil* as well as with the *pen*. In the advanced classes some very good pictures are drawn, each of which tells a story as well as if related in words.

WRITING.—This subject is taught as in Canadian cities. Every pupil is taught to read and write script from the beginning.

NUMBER.—Notation and numeration are taught by means of bundles of small slats. One pupil represents the units column, another the tens, another the hundreds, etc. When the first pupil gets ten slats, they are tied in one bundle, and given to the second pupil. When the second pupil receives ten bundles, they are bound into one bundle and handed to the third

pupil, etc. There are columns ruled on the board to correspond with the several pupils, in which the changes made in using the slats are indicated by corresponding changes in the figures. Straws or small sticks might be used instead of slats.

Ear-teaching has generally been superseded all over the world by *eye*-teaching; but *hand*-teaching is a greater improvement on *eye*-teaching, than the latter was on *ear*-teaching. It is well to let each pupil *see* for himself; it is infinitely better to allow him to *do* for himself. The numeral frame mode was a great improvement in the teaching of number and in the elementary tables; but it was only adapted to eye-teaching after all. How much better that every pupil should have the privilege of performing each experiment for himself. This is accomplished by having a wire with balls on it strung between two screw-eyes, on the front of each pupil's desk, in the primary departments. Large beads will do as well as balls, and they are cheaper.

Canada School Journal.

JAMES L. HUGHES.

THE LATE GEORGE B. EMERSON.

I HAVE been waiting to see some tribute to this eminent teacher in THE PACIFIC SCHOOL JOURNAL, hoping that some former pupil or associate of his, would more fitly present his claims to the very highest place in the educational pantheon. But as no one else has spoken, the spirit moves me to notice some of the reasons why Mr. Emerson is called "one of the ten great men of Massachusetts."

It is reputed that a parishioner of Henry Ward Beecher once asked him to give a simple rule by which a man could become both wise and good. "His first step," Beecher replied, "would be to select an eminently wise and good father and mother." My reverend friend went even farther than this, and selected as grandfather, the minister at Hollis, N. H., noted in the annals of the time, for preparing boys for college. Indeed, there had been an apostolic succession in the Emerson family. Ralph Waldo, the poet and essayist, who was for a time the colleague of Henry Ware in the Second Unitarian Church in Boston, being the eighth in the consecutive line of ministers. Dr. Emerson, the father of George B., was something of a naturalist, as well as a man of weight, among the physicians of Maine; the mother was equally well endowed; and when George entered Harvard University, a youth of twenty, a nobleman, by divine right, took his seat among the peers of New England. "What an ancestry, what a training, what a class!" said an old Bostonian, on a Harvard commencement occasion, when many of the graduates of that class, 1877, were present.

While on a visit to his brother in Oakland, in 1871, Mr. Emerson spoke delightfully of his classmates. "There were the three Sams," he said, "Sam. Eliot, and Sam. May, and Sam. Sewell, Dudley A. Tyng, Jo Coolidge, George Bancroft,

Caleb Cushing. In our junior year, Cushing and I botanized all around Cambridge; and looking at the collections we made at that time, I am reminded how fast our native plants are disappearing." I mention having seen the magnificent gardens and grounds of the Cushing place, near Watertown. "Yes," he said, "we have both been faithful to our early love for the trees and shrubs of Massachusetts." Faithful, indeed, through a long life he sought continually to enlighten the people of his State respecting forest culture and rural adornment ; he was for many years president of the Boston Natural History Society ; in 1837, he drew up a memorial to the legislature, upon Forestry an Arboriculture, which inaugurated a State bontanical survey. The results appeared in the "Report on the Forests and Forest Trees of Massachusetts," from the pen of Mr. Emerson, one of the most delightful books ever published upon the natural history of New England. When nearly 80 years of age, Mr. Emerson went to France to see the work of replanting the boulevards and parks which were destroyed by the bombardment of Paris. When the iron road across the continent was finished, he made haste to visit the Sequoia groves of California, accompanied by the venerable Dr. Jacob Bigelow, the author of the first Massachusetts School Botany. His love of nature burned with a constant flame to the last. But his love of humanity, his boundless faith, was the main-spring of his long-continued activity in the cause of education.

Among his early intimates and life-long friends, some were distinguished in the pulpit, at the bar, in the walks of literature, diplomacy, and philanthropy. Emerson chose the teacher's work, held it as the highest, made himself master of it as almost no other man of his time or any time has done. During his college terms and vacations, he had taught in the common schools ; in 1819-21, he was tutor in mathematics and natural philosophy in Harvard College ; then he had a rich experience in the Boston Classical School, where he abolished corporal punishment and outgrew many pedagogical traditions.

His boarding place was with Mrs. Emerson, the mother of his relatives William and Ralph Waldo, one of New England's grand women, who invited high discourse at her plain but well-ordered table. He made up his mind thus early, that the highest, fullest, and completest education should be given to women, whose portion had hitherto been scraps and crumbs none too graciously accorded. To this end, he bent his energies, and left the principalship of the Boys' High School of Boston, a very desirable and influential position, to open a private school for girls. At that time, 1823, the Boston public was not ready for a girls' high school.

During the thirty-five years spent in that school, Mr. Emerson wrote much on educational topics, lectured to teachers, and constantly won friends to his views of education at the sources of influence and power. The debt which the common schools owe him is immense, but so is that of higher schools and the University. He it was who obtained a State Board of Education ; and for half a lifetime he was one of its members.

How catholic he was, the Unitarians, his friend and co-worker Bishop Potter, Catherine Beecher, Emma Willard, could tell, if they had survived him. He seemed able to divine the educational status of a community, to know the exact next step for them, and often the best person to direct it.

How wise and to the point his advice, from the founding of a university out West, to the building of a rural school-house; nothing was too large or too small for his consideration. Take him all in all, he was far in advance of his generation, yet moved in complete harmony with it, "hearing," doubtless, "the same drummer," as Ralph Waldo would say. A wonderfully simple, sincere, yet elevated man. I should like to know that the building where he kept school for the Boston girls would outlast another century, and that a marble tablet thereon would be inscribed with the name of George Barrell Emerson.

JEANNE C. CARR.

Pasadena, November 15th, 1881.

SUGGESTIONS IN REFERENCE TO TEACHING UNITED STATES HISTORY.

THE purport of this paper is not to explain and enforce any particular method of teaching United States History; for I realize that the true teacher is not tied to any one method, but adapts his instructions to the circumstances in which he is placed. My object will have been accomplished if any suggestion I make shall prevent a young teacher from rendering this delightful study irksome to his scholars.

There are teachers in California who, either from indolence or from ignorance of a better way, profess to teach history by assigning a lesson from the text-book, which they insist shall be recited from memory in the very words of the book. Sometimes the recitation is conducted by the ordinary method of question and answer; but the answer must be in the author's words. No attempt whatever is made to explain the meaning of new terms, much less to unfold the springs of human action. There is no awakening of thought, no enlisting of sympathy in behalf of the noble and true. A scholar naturally brighter than his fellows, or one whose home surroundings are peculiarly happy, will, despite the teacher, gain considerable information; but the majority of the class see no connection whatever between the facts so painfully memorized and the present condition of the country. Sometimes the teacher asks some one to begin by giving all that is contained in the book regarding the first event mentioned in the lesson. The next scholar takes up the narrative where the first stops. If any point has been omitted, the scholars are expected in some way to indicate that they can supply the deficiency; but in all cases the words of the book must be used. So it goes round the class, with scarcely a break to relieve the dreary monotony. This method of conducting the recitation has advantages: it requires no little effort of memory, and some concentration of thought, and, above all, it allows the *teacher to take his ease*. He can be as indolent as he pleases, provided only that he keeps control of his class. Probably to some this is its chief recommendation. Used occasionally, this method would not be objectionable, if the scholars were required to give the substance

of the lesson in their own language. What I protest against is, the demand made upon the scholars' energies, when they are required to give the very words of the author. Excepting so far as it trains the memory, a *memoritu* recitation is utterly valueless. It arouses no dormant faculty; it does not in any way enable the scholar to assimilate his mental food. After "going through the book," the scholar knows nothing of his country's history. The Pilgrim Fathers, with their heroic devotion to principles, have not strengthened his moral nature. The Revolutionary heroes, giving their lives for their country, and the "boys in blue," stamping out rebellion, have planted in his mind no germ of patriotism. These characters are to him dim shadows of the past, less real by far than Robinson Crusoe or Gulliver's Liliputians.

In his admirable lectures on teaching, Fitch says: "These two objects, (1) to make history stimulating to the imagination and suggestive to the thought of the scholar, and (2) to furnish a good basis of accurate and well-arranged facts for future use and generalizations, will be before you. To care about the first object exclusively is to incur the risk of a relapse into slovenly teaching, and vague, picturesque impressions. To be satisfied with the second only, is to incur the yet greater risk of turning the most interesting and humanizing of all studies into a dull and joyless mnemonic, and so of giving your pupils a distaste for history which will last for life."

How are these objects to be attained? Let us for convenience take them in the inverse order.

If we are to give our scholars "a good basis for future use and generalization," we must evidently give due prominence to those facts which have had the greatest influence upon our national life. I need not remind you how defective our books are in this respect. Fact after fact is given with strict attention to their chronological order, but with little, if any, attention to the "order of their relative significance." Some minds may be able to retain them all, but these are the exceptions. Their great number prevents that clear impression being made which is necessary if our instructions are to have any value. The teacher, then, must select beforehand the facts he intends to give to his scholars. The minor ones should be grouped round some central or leading fact. In making the selection, it should be constantly borne in mind, that there is no reason why a scholar should attempt to carry out into the world all the facts contained in his history; but that "it is necessary that he acquire a taste for historical reading, and that he have the power to study the subject systematically." In making the selection, the text-book will not be of any special service. It is more likely to be a hindrance. Some will select minor facts which others will omit, and various methods of giving the selected facts to the class will naturally present themselves to different minds. I have known a good teacher require his scholars to mark their books so that they could tell at a glance what should be memorized and what omitted. Another, while using the book for reference, would tabulate all facts and dates under the eras of discovery, of settlement, of independence, etc. Whatever division is adopted, and however given to the class, every effort should be made to make a strong and clear impression. Each one will best accomplish this in his own way, and what succeeds with one class will not necessa-

rily be the best plan to adopt with another class. I have known months spent on the dry details of the several campaigns of the Revolutionary War, and yet scarcely a member of the class had a clear idea of the manner in which the war was carried on. This waste of time might very easily have been avoided. If we draw an outline map on the board and trace the movements of the opposing armies, marking the position of one or two of the most important battles of each campaign, requiring each scholar to make a *fac simile* of the one on the blackboard, the class will soon and easily obtain a sufficiently minute acquaintance with the more important facts of the war, and with its fortunes, ever varying and yet ever tending more and more to the complete overthrow of the British arms in America. Other plans will suggest themselves. Whatever plan be adopted, constant reference should be made to a map, and the outline map on the blackboard or on large sheets of paper, especially if drawn and filled in from time to time by the scholars themselves, will be more interesting and less confusing than an ordinary map. One thing should be carefully attended to in carrying out any method. The facts to be memorized and the dates to be learned should be gone over with the class, commented on, and made interesting before being assigned as a lesson. When thus invested with interest, and not before, they should be carefully and thoroughly prepared, and should be frequently demanded of the class, so as to firmly fix them in the mind. But, while demanding this of the class, we cannot too firmly impress upon our own minds, that facts and dates are not history. They are the dry bones of history, which, breathed upon by skillful teacher, fit together, bone to bone; and, being clad with flesh and skin, live forever in beauteous form. It is thus that history is "made stimulating to the imagination and suggestive to the thought of the scholars." To accomplish this, we must read extensively, and must lay our reading under contribution, to give life to our instructions. He who depends for his knowledge of United States history upon text-books alone is not prepared for the class-room. I do not wonder that such teachers make this interesting subject dull; that their scholars, during history recitations, never kindle into enthusiasm, produced by a vivid picture of the difficulties, hardships, and sacrifices of those who laid deep and strong the foundations of our government and our civilization. By their sharp questioning, and by their influence over their class, they may keep the scholars on the alert. Attention may never flag, and yet the instruction may only store the mind with facts, which, in themselves, have no germinating power. No matter how thoroughly the book work is memorized, such knowledge of history is only superficial. It will not "grow when the pupil carries it with him into the world of books and news and of conversation, nor" will it "furnish material for reflection in solitary hours."

This "germinating power" can be imparted by the teacher. It can be imparted in no other way. This is his proper function. It is this which distinguishes the teacher from the hearer of recitations; and, since our available text-books are at best collections of dry bones, all the more urgent is it that we discharge *our* functions as workmen who need not be ashamed of our work.

W. W. ANDERSON.

EDITORIAL DEPARTMENT.

THE NEW YEAR.

WHAT a fortunate, what a happy thought New-Year's Day is! How like the fabled gentle mother Earth, who so often revived and strengthened her offspring! Yet philosophers will tell us, that the thirty-first day of December is just such a day as the first of January; that there is no magic virtue in one day more than in the other. But who finds it so? It seems that the "turning over of the new leaf," the good resolutions, take on an added significance, acquire a more fervid vigor, because we begin right on New-Year's Day. We know how often good resolutions come to naught; but may we not be just a trifle better, despite, or perhaps even by reason of, a broken resolution? And we realize that, if all Christendom agreed to be merry and free from care, charitable and open-hearted, to greet one another kindly and mean it, on some other day—on May Day, on the Fourth of July—it would be the same. Yet, old habits and associations have marked the day; from it mankind looks forward to begin some good work or better life, and again backward as a landmark between which and the present some good may be seen.

Personally, and in our conduct of the JOURNAL, we move on with the stream. A milestone is reached for us. Ere we pass it by, let us pause, note the hour, and time the rate of progress. Five years have sped with arrowy swiftness over our work. How quickly the years have flown! How slow they seemed in coming! How trivial, how infinitesimal appears all the labor of weary months, when we contemplate the vast, the Herculean task still before us!

To educate the press: By demonstrating that in education, as in law or medicine or theology, or in the field of skilled labor, the judgment of an expert is the only competent criterion to decide fundamental questions affecting the theory or practice of the profession; by showing what this system of American popular education really is, what is its scope, and what its aims; by inculcating a regard for those higher forms of governmental energy which find display in developing the virtues of mankind, rather than in those lower types which are concerned in repressing their vices; by fostering a love of fair play, so that teaching and teachers may not be misrepresented and attacked because of their inability to defend themselves, and not because there are not real evils to crush everywhere around.

To educate the people: By showing their duty towards their own children in relation to education; by arousing an active interest in the schools, shown by more frequent visits; by setting forth what the schools are and what they are not intended to do; by educating them up to the point of recognizing a successful, well-conducted school when they see it, and of respecting and retaining a real teacher when they have one.

To educate the teachers: To enable them to improve themselves in their profession; to aid them in elevating their calling to the dignity of a profession; to widen their educational horizon, so that the reproach may not forever linger, that teachers gradually assimilate the mental traits of the children they teach; to widen their moral horizon, so that the labor shall be more a reward, and the monthly stipend less; to replace the too common envy and self-seeking and petty intrigue with the generous emulation that should be felt by all good soldiers battling together in a great cause; to so influence young and old, that to

their own inner consciousness and to the world without the teaching profession will be typified, not in a Squeers or an Ichabod Crane, but in a Froebel or a Horace Mann.

To attempt these things with all our strength, such is our resolution for this New Year. Nor do we expect to be alone. Those who have stood by us since our first sheet was issued to the world, as well as He who watches over all, will, we doubt not, lend their shoulders to the wheel and help us start the heavy burden.

Let all true teachers, all good men and good women, all who look for something beyond the dollars each effort may bring—let all such join heartily, hand in hand, here and everywhere, to speed this great work of rightly training the young, and it will indeed prove “a happy New Year,” not for us or them alone, but for all the generations of mankind.

THE NORMAL SCHOOL LIBEL SUIT.

WE believe the time has come to state the facts concerning the recent troubles at the Normal School, and to comment on the circumstances that led to, and the verdict rendered in, the libel suit against Principal Charles H. Allen.

A few months ago, by and with the advice of the Normal School Faculty, Prof. Allen requested the withdrawal of a senior-class pupil from the school. The young lady, in the judgment of several of the teachers, had deported herself in a manner unbecoming one who aspired to a teacher's position and responsibility. The request to withdraw was made on full consideration of all the circumstances, and after the pupil's frivolous and trying conduct had long been patiently borne by her instructors.

Immediately on her withdrawal, a series of articles appeared in the *San Jose Mercury*, which subsequent events disclosed as written by a retained writer, and at the instigation of her and her friends, maligning the Normal School and its management. These attacks, provoking no rejoinder, increased in strength and bitterness, until at length it became evident to the Faculty that some notice must be taken of their misrepresentations. This task of making a public reply was undertaken by Prof. Allen.

In his letter to the *Mercury*, in explanation of Miss Dixon's removal, the following sentence appeared: “By her conduct in class, by her behavior in and around the building, and by her spirit exhibited in numberless personal interviews, she has shown herself tricky and unreliable, and almost entirely destitute of those womanly and honorable characteristics that should be the first requisites of a teacher.”

Before the publication of this letter, it was shown to the Faculty of the school, and to at least one of the trustees. All deemed it accurate and unobjectional.

Directly on its publication, a suit for libel was instituted against Prof. Allen, damages being fixed at \$10,000.

Long before the day of trial, however, the suit had virtually been decided. In the newspapers, on the street-corners, in cars, in public halls and private homes—everywhere in San Jose—the cause was on trial. For reasons ably stated in the

following report, written by State Supt. Campbell, and unanimously adopted by the Board of Normal School Trustees, the drift of public opinion in the city of San Jose was against the school, though the vast majority of its responsible and intelligent citizens were heartily in sympathy with Prof. Allen and the Faculty.

The case was tried, and the jury brought in a verdict of \$1,000 damages against Prof. Allen. As will be seen elsewhere, a stay of proceedings was had, and the cause will be appealed to the Supreme Court, where, we are confident, there will be a reversal of judgment, or a new trial ordered.

At the first meeting of the board of trustees after the verdict, Prof. Allen tendered his resignation as principal of the school. This was referred to a committee, of which the State Superintendent of Public Instruction was chairman, and the following report was by them submitted :

WHEREAS, Prof. Chas. H. Allen has tendered to us his resignation as principal of the Normal School, and

WHEREAS, We believe that, under existing circumstances, to accept his resignation would be seriously to injure the efficiency of the school, and greatly to increase the difficulty of its management hereafter; therefore,

Resolved, That in Prof. Allen we recognize a man who has worked diligently, faithfully, and intelligently to build up the Normal School, and through it the educational interests of the State. His work has been fully recognized through the State in Teachers' Institutes, and we have had reason to know it fully, not only in the discharge of his duties as principal of the school, but also as secretary of the board of trustees, and as auditor and executive agent of the building committee. In all these relations he has shown himself active, capable, and honest.

Resolved, That as we have heretofore unanimously sustained him and the Faculty in the discipline of the school, we repeat our conviction, that the discipline of the school has ever been administered in a spirit of fairness, a spirit of justice tempered with all of leniency that is compatible with the good reputation and the good discipline of the school. It is a notable fact, that, during eight years under the present administration, but two cases of discipline have been appealed from the Faculty to the Board, and in both these the Board has fully sustained and ratified the action of the Faculty.

Resolved, That we feel it is due to Prof. Allen, and the Faculty with whom he is associated, that we should now recognize the result of their labors. When he was elected principal, the school had an attendance of about 120. Now the average attendance is more than 500. The course of study has been extended, and brought more into conformity to the work of a Normal School, and in all directions the school has been elevated and improved. During this period it has passed through an ordeal that well-nigh lost the school to Santa Clara County, if not to the State. The well-established reputation of the school through its graduates and undergraduates, and the wide-spread belief that it was doing its work well, alone saved it.

Resolved, That we therefore unanimously decline to accept the resignation of Prof. Allen.

This is perhaps all that the report and communication from Prof. Allen necessarily calls for; and yet we feel that to rest here would be to fall short of fully utilizing this opportunity in the best interest of the institution committed to our care, of a spirit of justice and fairness to the Faculty, and of duty to ourselves as trustees, and to the people of the State whose school it is.

The unfortunate occurrences of the past few weeks have attracted wide-spread attention ; and the public discussion and criticism by the press, and otherwise, of the immediate points at issue, have resulted gradually, and perhaps not unnaturally, in much misunderstanding and consequent misrepresentation concerning the institution itself, the work that it has done and is accomplishing, and much unmerited abuse of those intrusted with its management.

From some of the statements which have gone forth, those not having a personal knowledge of the facts might be led to conclude that the trustees had selected the Faculty of the institution without due care and consideration. The following concerning the principal members of the Faculty is therefore given :

C. H. Allen—Assistant and Vice-Principal in California State Normal 1 yr.; Principal since August, 1873, $8\frac{1}{2}$ yrs.; 10 yrs. Common Schools of New York and Massachusetts; 3 yrs. Academy in Pennsylvania; 3 yrs. Teachers' Institutes in Pennsylvania and Wisconsin; 1 yr. Associate Principal Normal School Chester County, Pennsylvania; $3\frac{1}{2}$ yrs. Normal Department in High School and University of Wisconsin; 5 yrs. Principal Normal School in Wisconsin; 1 yr. High School in Oregon.

J. H. Braly—Present position $8\frac{1}{2}$ yrs.; $2\frac{1}{2}$ yrs. President Sonoma College, including Public School; 3 yrs. President Union Academy, Contra Costa Co. Public School; 2 yrs. Principal Mountain View Public School; 2 yrs. Principal St. Helena Public School; 1 yr. Braly District Public School; 2 yrs. County Superintendent Santa Clara Co.

Ira More—Present position $5\frac{1}{2}$ yrs.; $\frac{1}{2}$ yr. Public School in Massachusetts; 1 yr. Bridgewater Normal School; 1 yr. Chicago Normal; 4 yrs. Illinois Normal University; 2 yrs. Professor of Mathematics Minnesota State University; 6 yrs. Principal Normal St. Cloud, Minn.

H. B. Norton—Present position $6\frac{1}{2}$ yrs.; 3 yrs. Public Schools Illinois; 1 yr. Illinois Normal; 7 yrs. Kansas Normal; 1 yr. Co. Superintendent.

C. W. Childs—Present position $3\frac{1}{2}$ yrs.; 11 yrs. in Public School and as County Superintendent.

Helen S. Wright—Assistant in California State Normal 1 yr.; present position $4\frac{1}{2}$ yrs.; between 5 and 6 yrs. Preceptress of Academy in Fredonia, N. Y. (during this time the school was made a Normal); 2 yrs. Preceptress Academic Department Potsdam Normal, N. Y.; 2 yrs. teacher in Seminary in Kentucky.

Cornelia Walker—Assistant in California State Normal 1 yr.; present position 7 yrs.; $4\frac{1}{2}$ yrs. in Public Schools of Minnesota; $4\frac{1}{2}$ yrs. Normal of Minnesota.

Lucy M. Washburn—Present position 8 yrs.; about 1 yr. Academy in Westfield, N. Y.; 2 yrs. Fredonia Normal; 2 or 3 yrs. Hampton Normal.

Mary J. Titus—Present position $9\frac{1}{2}$ yrs.; 5 years in schools of Wisconsin; $2\frac{1}{2}$ yrs. City Normal of Ogdensburg, N. Y.

Mary E. B. Norton—Present position 3 yrs.; 2 yrs. in Public Schools of Illinois and Iowa; 15 yrs. Rockford Seminary, Illinois; 1 yr. International Academy, Berlin, Prussia; 2 yrs. in Public Schools of Minnesota; 1 yr. Public Schools of Wisconsin; 2 yrs. Normal Minnesota; 3 yrs. Public Schools of California.

Eliza B. Barnes—Present position 1 yr.; 9 yrs. in Public Schools, Providence, R. I.; 12 yrs. Public Schools, San Francisco.

The growth of the institution in point of numbers and general efficiency, the readiness with which its graduates obtain situations as teachers and retain them, the unanimity with which the *alumni* of the school and the students now in attendance commend, indorse, and sustain the management, should be a sufficient and satisfactory refutation of all charges of maladministration.

It must be remembered, that the school is peculiar, and that in this State and on this coast there is no other institution by comparison with which it can be judged. Its students, largely young ladies, come from all parts of the State, and it not being a boarding school, they find temporary homes in various parts of the city. For the protection of the pupils, and for the furtherance of the objects for which they leave their homes, stringent regulations are adopted and enforced concerning the selection of boarding places, hours of study, attendance at public balls, parties, and places of amusement, being on the streets after certain hours, receiving company, etc., etc.—all of which are fully understood by students, and their parents or guardians; and, except in very rare instances, plainly recognized as right and proper, and hence readily and cheerfully complied with. In any community in which such a school should be located, bringing together so many hundreds of young people, there would necessarily be a large number of persons with whose profit or pleasure these stringent rules, faithfully administered, would so largely interfere, that antagonisms against the management must arise and increase from year to year with the growth of the school. It is but natural that all such persons should hail with delight any change and any occasion which should present the faintest promise of a more lax and accommodating code, and but natural also that they would not be slow to make the most of any such occasion. Professor Allen, as the executive officer of the Faculty, has been the special object of all antagonism thus created in San Jose and vicinity. Moreover, in the

faithful and honest discharge of the multifarious duties which the trustees or the law have imposed upon him as principal of the school, instructor at Teachers' Institutes, secretary of the board of trustees, and secretary and financial auditor of the building committee, he has no doubt provoked the hostility of many others whose interests were not identical with those of the trusts committed to him; and human nature must greatly change before so favorable an opportunity as has recently been presented would be allowed to pass without such hostilities actively manifesting themselves. And right here we desire to acknowledge, that it was largely due to Professor Allen's untiring watchfulness and care, as our agent, that the board was enabled to erect and completely finish the present building within the appropriation, and with something to spare. So much for the local public sentiment against Professor Allen and the Faculty.

Perfection can never be secured or hoped for in any merely human institution, and we will not claim that the Faculty of the Normal School presents the first instance; but we do claim and believe that the State Normal School of California is fortunate in having a Faculty second in point of ability, successful experience, honesty, and earnestness of purpose to that of no similar institution in the country, and that its members individually and collectively are entitled to the esteem, confidence, and support of this board and the people of the State of California.

After the reading of the report, a communication was received, signed by a large number of the most prominent citizens of San Jose, indorsing Professor Allen's management of the Normal School, and asking his retention, *at an increased salary*; and also resolutions of respect and commendation from the various classes which have graduated from the school.

These communications were filed; and then the report of the committee was unanimously adopted, only one member of the board, Gov. Perkins, being absent.

Mr. Allen was recalled, and Mr. Evans, acting President, addressed him as follows: "Professor Allen—The board have had under consideration your resignation, and have expressed their action in the matter in a series of resolutions with which you will hereafter become acquainted. In behalf of the board, I will state, only, that we have unanimously declined to accept your resignation, and express the hope that you may long fill the position as principal of the school that you have so ably filled, and that your work in the future may be as satisfactory to us as it has been in the past."

Mr. Allen feelingly responded, substantially as follows: "I thank you, gentlemen, for your kindly feelings, as exhibited in the remarks of the president of the board. To the resolutions, not having seen them, I will not attempt to respond. But I am more gratified that you, gentlemen, who know most of my work, approve it, than that you have declined to accept my resignation. I am willing to continue in the position of principal of the school, for the present at least, but should you at any time believe that my connection with the school will stand in the way of its highest success, you hold my resignation in your hands, to accept when you will."

Mr. Denman said that from his long connection with the school, as trustee, both in San Francisco and here, he was fully aware of the antagonisms that always arose when there is an attempt to enforce discipline in the school. He wished to say, in behalf of the board, that he hoped the discipline of the school would be as rigidly enforced in the future as in the past, and that he hoped that the Faculty would be fully sustained in all they do for the interests of the school. For the rules and regulations he was largely responsible. They are nearly what they are in the New York State Normal School, from which he graduated, and substantially the same as are found necessary in all Normal Schools.

On motion of Mr. Beans, the press of San Jose and the State was requested to publish the report of the committee on teachers.

IN MEMORIAM.

SINCE the last issue of the JOURNAL, death has invaded the happy household of our State Superintendent, and removed therefrom a loved and loving member.

In tendering our sympathy to him and to his family in the shadow of this great affliction, we but voice the universal sentiment of the teachers and school officers of the entire State. These universal expressions of genuine and heartfelt sympathy bear testimony to the warm place which Mr. and Mrs. Campbell hold in the esteem and love of all who know them well, or have ever been brought within the genial and kindly influence of their acquaintance.

The following touching and beautiful tribute is from the heart and pen of one of California's most gifted writers, CALVIN B. MACDONALD of Oakland:

"A few days ago, a young and lovely girl was borne away to her rest under the laurels of Mountain View by a great company of sympathetic friends—Emma Osmer, eldest daughter of the Hon. F. M. Campbell. She had been a priceless pearl in the rich casket of the family jewels, and hundreds of her young companions here are in sympathy with her parents' sore distress. She was only a little more than twenty years old, and for a long time her pure young life had been slowly exhaling under the advance of that terrible spoiler who is the surest and most relentless minister of death. She was kind, affectionate, and endearing in her nature, returning every tender demonstration of parental love with overflowing measure; and in the very last hour of her lifetime, perceiving her aged grandfather watching in her death chamber, she besought the old man to go and rest himself, and not be weary for her. Then, as at some gentle spirit's calling, her pure, warm soul suddenly kindled into the glow of eternal life, and passed swiftly away along the trackless causeway of the stars.

"And this was the peaceful end of her life-drama, to be recorded among the 'short and simple annals of the poor.' But, like the withered rose, her brief existence has left a sweet perfume pervading her father's house and heart. We cannot bear to think of such an incident as verily being death; for there is no death for innocence, beauty, and purity in the form of girlhood, any more than there is for the drooping water-lily that is prostrated momentarily under the bitter cruelty of the frost, only to rise again in undiminished splendor at the invocation of the summer birds; and will not Emma Campbell after a while gently undo the ceremonies of seeming death, and come forth again, not in the wasted form that has been clasped in the embrace of her mother Earth, not in the wan similitude of her melancholy departure, but in the lustrous beauty that angels wear in shining processions of eternity?

"In the faithful recollection of many a kindly act and generous impulse on the part of a friend now in inconsolable bereavement, the writer of this would lay some appropriate flower upon the shrine of a father's devotion; would invoke there the sweetest melody of the song-birds, and the watchful ministry of the gentlest and purest spirits that preside over Oakland's holiest ground. And when her grief-stricken parents shall return with fresh flowers and lessening heart-break, may all the sympathetic voices of the funereal grove speak to them lovingly of a kindred angel singing in Paradise."

Resolutions of condolence were passed by several county boards which were in session at the time. The following have been sent us for publication:

WHEREAS, We have received with deepest regret the sad intelligence of the

death of the daughter of our State Superintendent, Hon. F. M. Campbell. Therefore, be it

Resolved, That we tender to Mr. Campbell and family our warmest sympathies in this their great affliction.

Resolved, That a copy of this preamble and resolutions be placed upon the minutes of this board, and that a copy be forwarded to the bereaved parents. Also, that copies be furnished to the SCHOOL JOURNAL and to our county papers for publication.

Dated at Red Bluff, Tehama County, this 24th day of December, 1881.

R. H. BIERCE,
A. M. MCCOY,
E. S. CAMPBELL,
E. S. GANS,
MYRON YAGER,

County Board of Education.

CIVIL SERVICE REFORM.

THE association for the reform of the American civil service is daily gathering new strength, until now it numbers in its ranks the best men of both parties in the nation. There is a local association in San Francisco, which we recommend all intelligent and patriotic teachers to join. The fee required to become a member is merely nominal; and by increasing its numerical strength, every one can help in achieving a reform essential to the perpetuity of our republican institutions. A bill to procure the reform has recently been introduced in the Senate of the United States by Senator George H. Pendleton of Ohio.

This bill appears to us to be the most carefully conceived, the best adapted to the end in view, that has thus far been suggested. Should it pass, we may expect to enter on an era where intelligence and integrity will prove the means for entering the public service; where the occupation of the "boss" politician will be gone; and where the idle and vagrant will no longer rule the whole land, simply by reason of their idleness and vagrancy.

In this connection, we acknowledge the receipt, from the Civil Service Reform Association, New York, of a number of pamphlets, including one on "The 'Spoils' System and Civil Service Reform in the Custom-House and Post-Office at New York," by Dorman B. Eaton, Chairman of the Civil Service Commission appointed by President Hayes.

THE PORTRAIT OF AN EDUCATOR.

THE September-October number of *Education* contains, as frontispiece, an admirable likeness of the editor, Thomas W. Bicknell. One of our contemporaries considers the publication of this portrait a piece of bad taste. We think not so; for we believe that the work done in the field of education by Dr. Bicknell of the highest importance and fruitful of the best results. Dr. Bicknell is certainly entitled to a front rank among living educators. We owe him much for his aid in the establishment of American pedagogic literature.

"THAT'S JUST LIKE HIM."

THIS was the truthful expression of a prominent citizen of San Francisco as he read the following short speech of Superintendent Campbell, made in the Board of Normal School Trustees, upon a resolution which he had introduced to increase the salary of Miss Wright from \$1,800 to \$2,100 per annum. The attorney for the prosecution in the Dixon-Allen trial had attempted, it appears, to bring her and her testimony into ridicule. The remarks of Mr. Campbell are a characteristic tribute to the influence of good women.

Mr. Campbell spoke as follows: "In regard to Miss Wright and this resolution, I intended to say nothing, leaving the resolution to speak for itself. A magazine of recent date relates of President Garfield, that, at a meeting of the *alumni* of Williams College (of which he was not the least distinguished member), an appeal was made to this meeting of her sons for additional apparatus and other appliances of study. President—then Senator—Garfield said, that he was fully conscious of the value of these. 'But,' said he, 'give me a log cabin in the State of Ohio, with one room in it, and with a bench with President Hopkins on one end and me on the other, and that would be college enough for me.' These words of a wise man, expressing the value of personal contact with a great soul, gives me my text now. Miss Wright has done, and is daily doing, the work here which cannot be measured by any money standard or consideration; for the very contact with her, or any such woman, to feel her influence, to breathe the same air with her, to gather inspiration of all that is high and noble, and pure and good, and to carry all this abroad into the schools of the State, and into the very homes, is of itself enough to compensate for any expense for the establishment and maintenance of the school. And to think that any one would be mean and low enough to reflect upon her, simply for the paltry reason of winning a suit at law! *It is beneath contempt!*"

The board unanimously fixed Miss Wright's salary as recommended in the resolution.

A PEDAGOGICAL LAWSUIT.

A REMARKABLE case in law has lately been tried in the San Jose Court, Judge Belden presiding.

Miss Anna E. Dixon recovered from Prof. Charles H. Allen a verdict for \$1,000 and costs, upon proof that he had caused to be printed concerning her the charge, that "she had shown herself to be tricky and unreliable, and almost destitute of those honorable and womanly characteristics which are the first requisites of a teacher."

The defense brought evidence to prove that the young lady was a student of the State Normal School; that she was noisy and disorderly; that she used immodest language, distributed indecent papers, dishonestly copied examination answers, and sent in false reports of her own deportment. Evidence concerning her behavior at her boarding-house and upon the streets was ruled out by the Court.

It was shown that the Faculty twice sought to induce her to withdraw from school without public censure; that one Veuve, who afterward appeared as her

attorney, attacked the school by anonymous newspaper articles; that Prof. Allen, at the solicitation of members of the Board of Trustees and Faculty, made a public statement through the press, which included the words quoted above, and alleged to be libelous.

The Normal students, by a vote of 327 to 18, passed resolutions indorsing the action of Prof. Allen and the Faculty. Similar action has been taken by the *alumni* of the school and by the Board of Trustees.

Exceptions have been taken preparatory to an appeal to a higher court.

The issue is a broader one than the technicalities of prosecution and defense seem to imply. The real question is, whether or not a high standard of order and decency can be lawfully maintained in our schools.

THE MEETING OF THE STATE TEACHERS' ASSOCIATION.

A S we write, the fifteenth annual session of the State Teachers' Association is about to close. The meeting has been an unexampled success. Thirty-three counties were represented by more than one hundred and sixty delegates, and the best of harmony and interest prevailed. The only disappointing feature about this and similar meetings has been the apathy of the San Francisco teachers; neither by their presence nor by participation in the exercises have they shown the slightest interest in the professional work in which they are engaged.

The report of the proceedings of this meeting will appear in our February number. At the same time will be published reports of County institutes, which are crowded out of this issue.

ADVERTISERS AND BOOKS.

THE attention of our readers is once again called to our notices of new books, and to the announcements made of publications through our advertising pages. We frequently have inquiries made personally or by letter, which an examination of our advertising pages would readily and satisfactorily have answered. For instance, there are some teachers who very wisely have sets of all the different readers, of the various supplementary readers, of the best textbooks generally, on the shelves of their school library. Such teachers will find our advertising pages and book notices of decided value. In this number, there are announcements from the Scribners, Clark & Maynard, Cowperthwait, and others, of new books which should be in the hands of every teacher in the State.

MUNDAY'S GRAMMAR CHART.

AMONG the advertisements in our columns since last month is that of Munday's Chart of English Grammar. Within a brief compass, clearly and systematically presented, is a complete outline of the language. The idea is an excellent one, well carried out. For those who teach technical grammar, the chart will have undoubted value.

RESPONSIBILITY FOR ARTICLES.

OUR readers need not be informed that we disclaim all responsibility for opinions expressed in articles outside of the Editorial Department. Thus, in regard to the excellent article on "Moral Instruction," we believe it would be impracticable to enforce the suggestions of its writer. Our school system can be efficacious and truly American only so long as it is completely unsectarian. The teacher is not the sole educator of our youth. He shares the responsibility of education with the home and the church; but does not usurp the legitimate functions of either. It is the province of the parent and the spiritual director to establish in the tender mind those principles of religious truth on which all moral instruction (so Dr. Blakeslee acknowledges) are founded. Let home and church do well their part of education, and the precepts of the text-book, the example of the teacher, the very atmosphere of the public school, will give the most effective training in morals.

THE Legislature of Virginia, now in session, will elect a State Superintendent of Public Instruction to succeed Dr. W. H. Ruffner, who has held that position for the past twelve years. Dr. Ruffner was originally elected by the party now in the minority in the Legislature. But it is to be hoped that his eminent services in organizing a system of free public instruction in the Old Dominion, will be recognized by Virginia legislators, irrespective of politics, and that patriotism will prove stronger than partisanship.

In spite of the most disheartening obstacles, coldness, and opposition, Dr. Ruffner has brought Virginia well in line as one of the progressive American free school States, well worthy again to be the Mother of Presidents. His work is yet but begun, and it would be a pity indeed to send away from the helm of educational progress the best man in the South to direct the ship of popular education.

The Republican party has always claimed to be the party of progress and patriotism; they hold the balance of power in this Virginia Legislature; and we, from a Republican State, call on them to justify their professions by an act eminently in accord therewith.

DR. WICKERSHAM, late State Superintendent of Schools of Pennsylvania, has retired from the editorship of *The School Journal*, and Dr. Higbee, the State Superintendent, succeeds to the position. Dr. Wickersham has edited *The School Journal* for eleven years, and under his able management it ranked as the best monthly educational journal in the United States. The work Dr. Wickersham has done as State Superintendent of Pennsylvania, as editor of the *Journal*, rank him with Mann and Barnard and Page and Swett, as foremost in advancing the American idea of popular education.

We understand that Dr. Wickersham is engaged on a history of the school system of Pennsylvania. When this is completed, we hope he will turn his pen to a history of the American school system.

CROWDED OUT.

A LARGE quantity of local intelligence, book notices, etc., are crowded out of this number.

We trust superintendents and teachers will not be deterred by this apparent delay from sending us communications in regard to the progress of their schools. The new year opens well; let all help on in the onward, upward course.

SCIENCE RECORD.

THIS RECORD is under the editorial charge of Prof. J. B. MCCHESNEY, to whom all communications in reference thereto must be addressed.

A SOLUTION of common salt, given immediately, is said to be a successful remedy for strychnia poisoning.

THE JUDICIOUS use of oil of turpentine will effectually exterminate red ants. It may be injected into cracks and crevices in closets, and elsewhere, from an ordinary sewing machine oil can.

A REMEDY FOR HICCOUGH.—Dr. M. S. Leslie, of Lexington, Ky., says, that the best remedy in ordinary hiccoughs is, about twenty-five grains of common table salt, placed in the mouth, and swallowed with a sip of water.

RECENTLY, the Brighton (Eng.) Railway Company introduced the electric light on a special train of Pullman cars. Thirty-two Faure secondary batteries were employed to the car, to operate a dozen Swan lamps. The illumination was said to have been satisfactory.

A PROCESS of tanning with bichromate of potash has recently been discovered, and a company, which includes a number of capitalists in New York, and some Boston leather dealers, has bought chrome mines in California, and will manufacture the bichromate, and carry on a tanning business.—*Springfield Republican*.

M. D'ARSONVILLE, in the *Revenue Scientific*, is very sanguine about the future of electricity. He says that it will supersede all the motive powers by man, and surpass them in every way, and he promises to prove in an early article, that, whatever natural force may be employed, it is electricity alone which can store and transport it to any distance in a practical and economical manner.

BALL HOLES IN GLASS.—Reviewing the evidence in the second trial of Jesse Billings, Jr., Dr. Lewis Balch, of Albany, N. Y., sets it down as established, that a ball fired through glass may make a hole enough smaller than the full size of the ball before firing to prevent an unfired ball of like caliber passing. In an experiment with a baseball, it was found that the hole made was too small by one-third to let the ball be passed through.

WITH any ink usually employed in writing, reduced from ten volumes to six, and to which four volumes of glycerine have afterward been added, Professor Attfield has been able to obtain transcripts of manuscripts in an ordinary thin paper copying-book, without the use of a press. When a sheet of paper is written over with this ink, it is placed under one of the sheets of the book, and then a piece of blotting paper laid over the thin paper, takes up, when pressed in the common way, any excess of ink which may come through.

THE SAND BLAST.—Among the wonderful and useful inventions of the times is the common sand blast. Suppose you desire a piece of marble for a gravestone; you cover the stone with a sheet of wax no thicker than a wafer; then you cut in the wax the name, date, etc., leaving the marble exposed. Now pass it under the blast, and the sand will cut it away. Remove the wax, and you have the cut letters. Take a piece of French plate glass, say two by six feet, cover it with fine lace, and pass it under the blast, and not a thread of the lace will be injured, but the sand will cut deep into the glass wherever it is not covered by the lace. Now remove the lace, and you have a delicate and beautiful figure raised on the glass. In this way, beautiful figures of all kinds are cut in glass, and at a small expense. The workmen can hold their hands under the blast without harm, even when it is rapidly cutting away the hardest glass, iron, or stone; but they must look out for their finger nails, for they will be whittled off right hastily. If they put on steel thimbles to protect the nails, it will do but little good, for the sand will soon whittle them away; but if they wrap a piece of soft cotton around them, they are safe. You will at once see the philosophy of it. The sand whittles away and destroys any hard substance—even glass—but does not affect substances that are soft and yielding, like wax, cotton, or fine lace, or even the human hand.—*Journal of Science*.

THE POISON OF HUMAN SALIVA—Recent observations by M. Gautier (communicated to the Paris Académie de Médecine) afford reason for believing that the poison of serpents differs from human saliva in the intensity of its effects, rather than in essential nature, so that the fears with which a human bite is often regarded may not be wholly unreasonable. M. Gautier took some twenty grammes of human saliva, and, after lixiviating and purifying, obtained a substance which, injected in the form of solution under the skin of a bird, had remarkable toxical effects. Almost immediately the bird was seized with trembling. It staggered and fell to the ground in a state of coma and complete stupor, terminated by death in half an hour or an hour, according to the dose injected and the vigor of the animal. The phenomena resembled fully those produced by the bite of a venomous serpent. The poisonous matter of the saliva is thought to be an alkaloid similar to the cadaveric poisons called *ptomaines*, which MM. Brouardel and Boutmy have isolated. Like them, it produces Prussian blue when mixed with ferrocyanide of potassium. The facts stated throw some light on the question of virulent maladies. The present case, it is pointed out, is not that of a true virus; for at high temperatures a virus is destroyed, but when the salivary alkaloid is heated to more than 100°, its poisonous property is not affected. M. Gautier studied comparatively the poison of the cobra (one of the most formidable of Indian serpents). This injected, in a dose of one milligramme in a quarter of a cubic centimeter of water, under the skin of a small bird, such as a chaffinch or a sparrow, kills it in five to twelve minutes. One observes torpor and coma, then a period of excitation, with convulsions and tetanic contraction. In connection with the subject, a correspondent of *La Nature* calls attention to a passage of Rabelais, in which the poisonous nature of human saliva is recognized.

OFFICIAL DEPARTMENT.

SUPERINTENDENT FREDERICK M. CAMPBELL, EDITOR.

THE meeting of the State Board of Education which was to have been held on Saturday, the 17th of December, was necessarily postponed till Saturday, January 14th, 1882.

COUNTY CERTIFICATES REVOKED.—A. E. Lovett's first and second grade, of Calaveras County, and I. N. Lafferty's first grade, of Sonoma County.

THE following summary of statistics is from the reports for the year ending June 30th, 1881:

Number of census children, 211,237, a decrease on last year of 4,741; number enrolled on register, 163,855, an increase of 5,070; average daily attendance, 105,541, an increase of 4,575; number of teachers, 3,809, an increase of 214; average cost of tuition of scholars enrolled, \$14.32, increase, 41 cents; cost of tuition per scholar of average daily attendance, \$22.23, an increase of 37 cents; total receipts for 1881, \$3,680,816.29, an increase of \$107,707.97 over last year; total expenditures for teachers' salaries, etc., for 1881, \$3,047,605.03, an increase in expenditures over last year of \$183,033.61, against an increase of receipts of \$107,707.97.

NEWS RECORD.

Foreign and Domestic.

General Kilpatrick, United States minister to Chile, died at Santiago on the 4th of December. He was an eminent general during the last war.

In the Senate, Mr. Ingalls has presented a measure for the admission of New Mexico into the Union. Mr. Hoar has offered a resolution for a special committee to consider all documents referring to woman suffrage.

The forty-seventh Congress of the United States assembled at noon, Monday, December 5. The Senate, having organized at the late special session by the election of Senator David Davis as president, was all ready for business. The House organized by the election of General J. W. Keifer, of Ohio, for Speaker, who was selected by the Republican caucus on Saturday evening.

The first message of President Arthur to Congress was delivered on Tuesday. It is conceded to be an exceedingly able document. The President declares against polygamy, and in favor of suppressing it. He advocates the education and absorption of the Indian population into the great body of our citizens, giving them land in severally as fast as they are fit to take care of it. He commends the establishment of such Indian schools as the one at Carlisle Barracks. He favors government aid to education, by using the proceeds of the sales of the public lands for school purposes. The condition of our relations with foreign countries is stated much more specifically than has been the custom in such papers.

According to the annual report of the Chief of the Bureau of Statistics of the United States Treasury Department, \$729,650,016 worth of agricultural products was exported from this country during the last fiscal year, being \$43,688,925, more than for

any preceding year in the history of the country.

A severe autumnal storm raged last week in Great Britain, doing great damage both inland and at sea. At Blackpool, one of the famous English watering places, the sea swept into many of the houses through the windows, and swept down the streets, one thoroughfare being under six feet of water. At Dublin, Ireland, the storm was the severest known for years, and in County Galway it was the worst experienced for half a century. The shipping casualties were numerous.

On October 25th, Queen Victoria completed a reign of 44 years and 128 days, the precise length of time Queen Elizabeth sat upon the English throne.

Personal.

Julian Hawthorne, the novelist, will, it is said, take up his residence in this country within a few months.

George Bancroft, the historian, celebrated his eighty-first birthday recently. He is living at Newport, R. I.

The portrait of President Garfield will distinguish the new five-cent international postage stamp.

Mr. W. D. Howells is ill in Belmont from a nervous malady, supposed to be the result of overwork.

Mr. Henry James, Jr., the novelist, will soon return to America.

The Czar of Russia will be crowned at Moscow next April.

Mr. Paul Bert has shown that green light hinders the development of plants, which is the reason that grass does not grow well under trees.

John Jasper has been re-elected Superintendent of the Public Schools of New York City for two years, and salary increased to \$6,500.

A statue of Lord Byron has been erected at Missolonghi, where he died, the ceremony of unveiling being attended with great popular enthusiasm.

BOOK NOTICES.

THE COMMERCE AND INDUSTRIES OF THE PACIFIC COAST. By John S. Hittell. Quarto of 800 pages.

We have received the prospectus and some advanced sheets of this work from the publishers, Messrs. A. L. Bancroft & Co. The scope of the work is certainly the most comprehensive yet attempted regarding the resources, progress, products, manufactures, commerce, and general business interests of all the States and Territories west of the Rocky Mountains. The authorship and manufacture of the book is in the very ablest hands. The name of Mr. Hittell on the title-page is a sure guarantee that the work in every part will be well done. The work will be divided into seven general divisions: Introduction, in which we find a description of the field and of the general features of business. The division on commerce embraces banking, insurance, railroads, shipping, telegraphs, expressing, merchandising, hotels, etc. The agricultural division covers the cereals, horticulture, domestic animal, and agricultural miscellany. Mining includes gold, silver, copper, quicksilver, and mining miscellany. The treatment of the fisheries embraces every department in that line, with a full list of all the salmon canneries on the Coast. Chapters on inventions, water-works, lumber flumes, gas-works, etc., will be found in the division on engineering. There are to be twelve chapters on manufactures, treating of printing, wood-working, iron manufactures, lead products, gold and silver ware, mineral miscellany, textile fabrics, leather and leather products, pottery, provision, and everything from the largest and most expensive machinery to the lucifer match.

The plan of this work is indorsed by the San Francisco *Chamber of Commerce*, by many prominent business men, by the

leading foreign consuls of San Francisco, and by our entire California delegation in Congress. From the pages before us, we do not hesitate to say, that we believe it will be the most important and most valuable book concerning the business interests of the west side of the continent ever published. It will be exceedingly valuable as a reference book, and will doubtless find a place in every school and public library and on every business-counter of consequence on this Coast, as well as a large circulation in the Eastern States and Europe.

It will be sold by subscription only, and it is under the business management of Hon. Ira G. Hoitt, who is so well known to our educational public as an old teacher, and more recently chairman of the Committee on Education of the last Assembly.

AUTOGRAPH BIRTHDAY BOOK. D. Lothrop & Co., Publishers. Price, \$1.00.

This little book is the choicest in the holiday collection. The poets Longfellow and Whittier (writing in their happiest vein) have each a poem appropriate to a different month. Mrs. Whitney, Will Carlton, Thomas Bailey Aldrich, and other American poets whose sweet notes you love to listen to, have told in rhyme that which is sweetest to be said about every month in the year, accompanied by illustrations emblematical of the month. There are three hundred and sixty-six conduct mottoes—one for every day in the year—gleanings from the richest thoughts of our best thinkers. Besides these, Miss Harris has made the finest selection of poems, each bearing the name of its author. These poems ought certainly to be a great aid in filling out the blanks for each day in the year. Surely, their thoughts will suggest noble purpose, and this carried into every-day life will reflect itself in noble deeds, to be recorded

on the blanks the publishers so wisely left for that purpose. This little volume is beautifully illustrated, and bound in bevelled boards with illuminated cover and gilt edges. It has a pretty frontispiece. You cannot select anything prettier for a gift book.

INITIA GRÆCA. Part I. A First Greek Course, Comprehending Grammar, Dialectus, and Exercise Book, with vocabularies. By William Smith, D.C.L., LL.D. New York: Harper & Bros. San Francisco: A. L. Bancroft & Co. Twelfth Edition, Thoroughly Revised. 229 pp.

The great usefulness and success of the above work lies mainly in the excellent combination of grammar and corresponding exercises. As soon as the pupil has mastered a declension or the conjugation of a verb, he writes a number of exercises on the same, thus obtaining a thorough grounding. This is quite according to the German method of such text-books, and has always produced the best results.

The print is clear and excellent, the syntactical part giving only what is most necessary. A novel feature is the addition of the stems of words, prefixed to the paradigms of nouns, adjectives, pronouns, and verbs, especially useful in the irregular ones. A Greek-English and English-Greek vocabulary appended to the book, aids the pupil in translating the exercises, and enhances the value of this first part.

AMERICAN MEN OF LETTERS. WASHINGTON IRVING. Edited by Charles Dudley Warner. Boston: Houghton, Mifflin & Co. San Francisco: A. L. Bancroft & Co. 304 pp. Price, \$1.25.

The time for publishing such a series was ripe, and by no other hands could the work be more appropriately done than by the publishers of the *Atlantic Monthly*. Before us is the initial volume of the series. No other name could more appropriately head the list of American Men of Letters, for before his day there certainly was nothing that could be termed American literature. The choice of Charles Dudley Warner as writer of this volume, and editor of the series, is peculiarly felicitous. He himself has no inconsiderable share of that charm of manner, that simple elegance of style, which makes the pages of Irving so attractive.

There is no doubt, as we see on reading these pages, of his belief in his subject; of his thorough affection for and sympathy with him. The book is small enough to enable the reader well "to take in" the subject, and large enough to give a complete idea of Irving's life and the character of his work.

It is a book which should have a place on the shelves of every teacher's library, and it, as well as its succeeding volumes, is indispensable in every well-selected school library. Its typography (Riverside Press, Cambridge), binding, etc., make it one of the daintiest volumes issued from the press.

THE HUDSON. By Wallace Bruce. Illustrated by Alfred Fredericks. Boston: Houghton, Mifflin & Co. San Francisco: A. L. Bancroft & Co. Price, \$1.50.

This is a beautiful little volume, just the thing for a holiday gift. The poem is divided into parts—Morning, the Catskills, the Adirondacks, the Highlands, Tappan Zee, and Evening. The illustrations harmonize charmingly with the poetry, and are fourteen in number. The binding is very tasty, and the make-up of the book is worthy the publishers whose imprint is on the title-page.

While the poetry is not of a very high order, the verses are yet graceful and musical.

The book will make a pleasant holiday gift.

INSECTS. HOW TO CATCH AND HOW TO PREPARE THEM FOR THE CABINET. By W. D. Manton. Boston: Lee & Shepard. San Francisco: Doxey & Co. Price, 50 cents.

We have often advised teachers to interest their pupils in the study of natural history. The book before us is cheap, definite, and will be found extremely useful in aiding them in that direction.

NEW MANUAL OF GENERAL HISTORY. Part I.—Ancient History. By John J. Anderson, Ph. D. New York: Clark & Maynard. 302 pp. Price for introduction, 85 cts.

This book, the first of two, giving a clear outline of history, for the common school student, presents all the admirable features of Dr. Anderson's other books. The style is simple and attractive; the text is accurate, conforming to the most recent discoveries. It is well illustrated, and the maps

are numerous. Typographically, in binding, and mechanical execution generally, the book is a credit to the publishers.

INTRODUCTORY COURSE OF NATURAL PHILOSOPHY. For the Use of High Schools and Academies. Edited from Ganot's Popular Physics by William G. Peck, LL.D. New York: A. S. Barnes & Co. San Francisco: Cunningham, Curtiss & Welch. Price, \$1.50.

This admirable work, which, as a textbook for high schools, has never been equaled in this country, comes to us, in this revised edition, brought well up to the advance of modern scientific thought.

The revision was commenced by Prof. Burbank of Woburn, Mass., and, on his death before the completion of his task, was finished by Prof. Hanson. The original plan of Peck's Ganot has been retained, but new matter has been generously added, and new illustrations multiplied. We heartily commend this work to the attention of our teachers; either as a book for reference where a more elementary work is used, or for the use of higher classes, it has no superior.

Typographically and in binding, the work is as perfect as the best workmanship can make it.

A MANUAL OF ENGLISH LITERATURE. By N. K. Royse. Philadelphia: Cowperthwait & Co. Price, \$2. For sale by all booksellers.

Since the conversion of the educational public to a belief in the value of the study of English literature, text-books on the subject have been indefinitely multiplied. The common failing of most of these works is, that they are simply collections of prose and poetry, with nothing marked about them to distinguish them from the ordinary school "speaker."

Not so the book before us. In several respects we note original and valuable features.

First, only the best authors are represented. Second, their study is taken up in an order the inverse of the usual one: living authors first, and then those of the past.

The book is arranged in two parts:

Part I. is a sketch of the history of English literature, in which are noted briefly,

and in chronological order, the various stages of growth of the English language and literature, together with the divers influences, temperamental, physical, social, political, and religious, that have contributed to shape from time to time their development.

Part II. is made up of concise biographies of some fifty of the most noted of representative English authors, of liberal and characteristic extracts from their chief works, and of authoritative critical estimates of their literary characters. In this part of the work, the various authors are treated of in a reverse chronological order. Living and recent authors claim the student's earliest attention; at the same time, there is nothing in the present arrangement to prevent the adoption of any other order of study.

As a school library book, for reference, this manual will be found of service.

INTRODUCTION TO ELOCUTION. By Mark Bailey. New York: Taintor Brothers, Merrill & Co. 60 pp. Price, 50 cts. For sale by all booksellers.

This little book is, without exception, the most valuable manual on good reading yet issued from the press. Prof. Mark Bailey, so well known as the instructor in elocution at Yale College, and the editor of the elocutionary parts of Appleton's Series of Readers, is the author, a fact which of itself will establish the high utility of the book for the end in view.

The book consists of two parts. Part I. treats of Elocution, Method of Analysis, Classes of Ideas, Vocal Expression, and Elements of Vocal Expression. Part II. treats of Force, Time, Slides, Pitch, Volume, Stress, Quality of Voice, Poetic Reading.

The book should be on every teacher's table, ready for constant reference.

THE NEW METHOD. By R. H. Holbrook. Danville, Ind.: J. E. Sherrill. Price, 75 cts.

This book is intended for teachers in all grades of schools, and is designed "to show how the best methods of teaching will result in the best school exposition, and how the best school exposition will suggest the best methods of teaching." By school exposition is meant the exhibition, by sys-

tematic arrangement, of the regular work of *every* pupil of every class, in such manner and place as will enable every patron to examine it, and to ascertain just what is done in the schools.

Those superintendents and teachers who wish to learn how the yearly institutes may be made most serviceable, will find this book full of hints tending to inform them to that end.

SHAKESPEARE'S TRAGEDIES OF CYMBALINE AND CORIOLANUS; with Introduction and Notes Explanatory and Critical. For Use in Schools and Families. By Rev. Henry N. Hudson. Boston: Ginn, Heath & Co. Price, 65 cts. each.

These two books complete the series of twenty-three volumes of Dr. Hudson's school edition of Shakespeare's plays. And most admirably are they adapted for the purposes designed.

This is termed the expurgated edition. We may confidently say, that in no case has aught been omitted that is necessary either for the unity or beauty of the text of Shakespeare; but on the contrary, every expurgated line, no matter how fine it may be in the abstract, only jars the more refined taste of our age.

The same publishers, Ginn, Heath & Co., now announce, as ready, the Harvard Edition of Shakespeare's complete works. It is issued in twenty volumes, at \$1.25 per volume; and in ten volumes, at \$2 per volume.

PRACTICAL LOGIC; or, The Art of Thinking. A Text-book for Schools and Colleges. By D. S. Gregory, D.D., President of Lake Forrest University. Philadelphia: Eldridge & Brother. Price, \$1.15. For sale by all booksellers.

This is a practical, elementary text-book on logic. There are no original ideas in the treatment of the subject, but it is handled in a clear, simple manner, and within a reasonable compass.

After definitions of logic, and its divisions, Dr. Gregory proceeds, in Part I., to treat of the Formation of Conceptions, and the Unfolding of Conceptions; in Part II., he presents the logic of Judgment, or the Proportion, the Unfolding of Judgments, and Development of Inferred Judgments; in Part III., the Logic of Reasoning, or the

Syllogism; and in Part IV., the Logic of Construction on the System.

We observe that, in the main, the author follows the logic of Prof. Jevons, a positive merit.

We know of no better text-book on this subject than the one we here introduce to our readers.

THE LAWRENCE SPEAKER. A Selection of Literary Gems in Prose and Verse, designed for the Use of Colleges, Schools, Seminaries, Literary Societies, and especially adapted for all persons desiring to excel in declamation and public speaking. By Philip Lawrence. Complete in one large duodecimo volume of over six hundred pages, bound in half-morocco. Philadelphia: T. B. Peterson & Bros. Price, \$2. For sale by all booksellers,

Our teachers are quite generally familiar with this excellent work on elocution. The edition before us is unsurpassed for fullness of detail in elocutionary drill, and the selections represent nearly every name of poet or prose writer known to fame.

We understand that the publishers offer to supply teachers and schools at very low rates, by the single copy, dozen, or hundred.

BERTHA'S BABY. Translated from the French of Gustave Droz. Philadelphia: T. B. Peterson & Bros. For sale by all booksellers. Price 50 cts.

This story, which is claimed to be "superior to 'Helen's Babies,'" has not, in our opinion, the slightest resemblance to that work. There are undoubted evidences of great ability, but rather "too much gush" to suit the ordinary healthy taste.

SOME TOPICS IN ENGLISH GRAMMAR; for the Pupil, the Teacher, and the General Reader. By Arthur Hinds. Hempstead, New York.

Mr. Hinds was, until recently, teacher of grammar in the Westfield, Mass., State Normal School. The system of grammar of which this book is the outcome, has been taught in that school by the principal, J. G. Scott, and Mr. Hinds.

The gentlemen evidently are students of language, and have discovered that English is not "a grammarless tongue," and that the cause of the failures and confusion and contradictions incident to the

present grammar teaching arise from the attempt to engraft the grammar of the Latin and Greek on our English language. A remarkable coincidence in regard to this book is that a well-known educator of our State, Joseph Leggett, now practicing law in this city, has, in a lecture quite generally delivered by him throughout the State, made the same criticisms, and elaborated rules quite similar to those developed in this book.

Our progressive teachers will find something well worth attention in this work. We do not know if our bookstores can supply it, but on writing to the author, farther information may undoubtedly be obtained.

LITERARY NOTES.

The Nursery will be united with *Our Little Ones* in January.

The Christmas number of the *New York Independent* consists of 40 pages, and is a magnificent issue. Among its contributors are John Greenleaf Whittier, Oliver Wendell Holmes, Edmund Clarence Stedman, Richard Henry Stoddard, George William Curtis, William M. Taylor, D. D., U. S. Senator Dawes, Theodore L. Cuyler, D. D., Thurlow Weed, Hugh McCulloch, Louisa M. Alcott, Sarah Orne Jewett, Mary Clemmer, and Rose Terry Cooke.

We again take occasion to recommend this paper, and likewise the *Christian Union*, as the two most interesting and attractive family papers published in the English language.

Mr. Richardson Watson Gilder has succeeded the late Dr. Holland in the editorial control of the *Century Magazine*, the successor of *Scribner's Monthly*. Mr. Gilder—long Dr. Holland's associate, and really the working editor of the office—is still comparatively a young man, being less than forty years of age. He entered journalism as editor of an amateur paper which he published when only twelve years of age, and has ever since been steadily advancing in his profession. This is something to encourage our boys.

The second in the series of American Men of Letters, Noah Webster, will contain a steel-engraved portrait taken from a very old and valued portrait in oil made by James Herring.

The Hoosier School-Boy, by Edward Eggleston, and Mrs. Dodge's story, Donald and Dorothy, begin in the Christmas *St. Nicholas*. According to their usual custom, the conductors of that magazine will make a specially brilliant number of this Christmas issue. It has a hundred pages, a special cover, and nearly a hundred pictures, with a Christmas story, An Angel in an Ulster, among its Christmas contents.

The first number has appeared of *Knowledge*, the new scientific journal edited by Mr. R. A. Proctor.

A new and enlarged addition of the works of Bret Harte, in five uniform volumes, is to be brought out by Houghton, Mifflin & Co.

Oscar Browning, M. A., has written a History of Educational Theories which the Messrs. Harper will soon publish.

William T. Adams ("Oliver Optic") is editor of *Our Little Ones*, a magazine now in its second volume, published by the Russell Publishing Company, Boston.

The dainty little volume entitled "The American Newspaper," by Charles Dudley Warner, and published by J. R. Osgood & Co., Boston, is sold for only twenty cents, instead of forty cents, as stated by us in our last issue.

The regular edition of *St. Nicholas* in England is now eight thousand copies. Ten thousand copies of the Christmas number are being sold there.

LITTELL'S LIVING AGE FOR 1882.—This widely known weekly magazine has been published for nearly forty years, and during that period has been prized by its numerous readers as a thorough compendium of the best thought and literary work of the time. As periodicals become more numerous, this one becomes the more valuable, as it continues to be the most thorough and satisfactory compilation of the best periodical literature of the world. It fills the place of many quarterlies, monthlies, and weeklies, and its readers can through its pages easily and economically keep pace with the work of the foremost writers and thinkers in all departments of literature, science, politics, and art. Its importance to American writers is evident; in fact, it is well-nigh indispensable to those who would keep informed in the best literature of the day; and its success has therefore been uninterrupted. Its prospectus is well worth attention in selecting one's periodicals for the new year. New subscribers remitting now, for the year 1882, will receive the intervening number *gratis*, and its clubbing rates with other periodicals are worthy of notice. Littell & Co., Boston, are the publishers.

The January *Century*, a large edition of which is on the press, will be delayed this month until the 23rd. One of its novel features is to be a frontispiece printed in tint—a portrait of Ex-President Theirs, accompanying an article by the Hon. Elihu B. Washburne, our former minister to France. A full-page portrait of Queen Margaret of Italy is given in connection with an article on the making of Burano lace, for which the Princess Louise of England has made a sketch. The number also has another portrait of President Garfield (from an autotype by Edward Bierstadt, N. Y.), which will accompany an anecdotal paper by Colonel A. F. Rockwell, entitled, From Mentor to Elberon. The immediate friends of the late President regard this portrait as giving a somewhat different phase of the late President's character from that presented by the engraving by Cole in the December *Century*, and as revealing his affectionate qualities, while the latter was especially strong on the intellectual side of his nature. The autotype is also interesting, as

being the portrait Mrs. Garfield selected to send to Queen Victoria. The sale of the November and December *Century* still continues. A new edition of nine thousand of the latter number has just been issued.

The leading article in the *North American Review* for January contains the judgments of five of the most distinguished American authorities upon The Moral Responsibility of the Insane. Just at present this subject occupies a very prominent place in the minds of the American people; but apart from its momentary interest, as connected with the extraordinary trial now in progress at Washington, the problem of determining the fact of insanity, and fixing the limits of responsibility of the insane, is one that in itself possesses an irresistible attraction for every generous mind. The wreck and ruin of intellect appeals at once to our highest sympathies, and to whatever is noblest in human curiosity. The authors selected for the discussion of this subject are Drs. Beard and Seguin of New York, Dr. Elwell of Cleveland, Dr. Jewell of Chicago, and Dr. Folsom of Boston. The other articles in the January number of the *Review* are as follows: The New Political Machine, by Wm. Martin Dickson; Shall Women Practice Medicine? by Dr. Mary Putman Jacobi; The Geneva Award and the Insurance Companies, by G. B. Coale; and A Chapter of Confederate History, by F. G. Ruffin.

An announcement is made that the February number of the *Review*, to be issued January 15th, will contain Part III. of the Christian Religion series of articles, and that it is to be a very able defense of the Christian faith.

The editor and proprietor of the *North American Review* announces that the *Review* will be hereafter published at No. 30 Lafayette Place, and will appear under its own imprint. He states that he has found it impossible to conduct the publication in the spirit of the motto adopted by its founders—making it a forum of independent thought, and extending, at his discretion, the hospitality of its pages to thinkers and scholars of all creeds and forms of belief—and at the same time to maintain relations with a publishing house having extensive school-book and other interests of its own to promote. This change of imprint will involve no alteration whatever in the organization or service of the *Review*.

A life-size portrait of Ralph Waldo Emerson, uniform with the *Atlantic* portraits previously published of Longfellow, Bryant, Whittier, Lowell, and Holmes, has just been published. It represents Mr. Emerson, not in his old age, but in the full vigor of his manhood. To those who used to hear Mr. Emerson lecture twenty years ago or more, this picture will recall the marked features and the personal appearance of one who then was, and who still is, a leader in American thought and letters. It cannot fail to be heartily welcomed by all those who have ever heard Mr. Emerson lecture, and by those who have read his remarkable writings, and must also be acceptable to those who, without personal knowledge of him or intimate acquaintance with his books, yet know that he is an honor to American literature, and sheds luster upon the American name through-

out the world. The portrait was prepared for subscribers to the *Atlantic Monthly*, to whom it is furnished for one dollar, by the publishers, Houghton, Mifflin & Co., Boston.

In the *Popular Science Monthly* for January, we have Earth-Worms and Their Wonderful Works, by W. H. Larabee; Astronomy in High Schools, by Eliza A. Brown; Jurassic Birds and Their Allies, by Prof. O. C. Marsh; The Chemistry of Coffee and Tea, by Albert B. Prescott; The Bunsen Lamp, by H. P. Armsby; and The Colorado Desert, by Joseph F. James.

In the *Atlantic* for January we have, among others, the following articles of note: Police Report, by W. D. Howells; An Echo of Passion (I.-III.), by George Parsons Lathrop; Three Worlds, by J. T. Trowbridge; John Baptist at the Jordan, by Edward E. Hale; Hindu Humor, by Elizabeth Robins; Studies in the South; The Prominence of Athletics in England, by A. Granville Bradley; A Midsummer Fete in the Pueblo of San Juan, by H. H.; Flower and Fruit, by Edith M. Thomas.

In the *Century Magazine* (Scribner's) we have A Provincial Capital of Mexico, by Mary Hallock Foote; Through One Administration, by Mrs. Burnett; English and American Song-Birds, by John Burroughs; A Modern Instance (a novel), by W. D. Howells; The Caverns of Luray, by Ernest Ingerson; From Mentor to Elberon, by Col. A. F. Rockwell; The Increase of Divorce, by Washington Gladden; and Reminiscences of Thiers, by Elihu B. Washburne.

In the *Californian*, noteworthy, are California Winter, by E. R. Sill; Capt. F. X. Aubrey, by James O'Meara; Friday's Child, by Millicent W. Shinn; At Pasadena, by Charles H. Phelps; Restoration of American Shipping, by C. T. Hopkins.

In the January *Lippincott*, we have, among others, Seville (illustrated), by S. P. Scott; Stephen Guthrie (a story, illustrated); Pets (illustrated), by Felix L. Oswald; A Comedy of Errors (a Christmas story), by Henry A. Beers; Railway Stations, by Edward C. Bruce; Decoration under Difficulties (a sketch), by Helen Campbell; The Bank Secret (a story), by William O. Stoddard; Our Common Schools, by Richard T. Ely.

In the January *Harper*, a magnificent number, there are King Coal's Highway, by G. F. Muller; Anne (a novel), by Constance Fenimore Woolson; With the Vanguard in Mexico, by W. H. Bishop; Journalistic London, by Joseph Hatton; Who Were the Pilgrims, by William T. Davis; Political Aspect of Mormonism, by Hon. G. F. Edmunds.

St. Nicholas for January is just *St. Nicholas*: neither more nor less. It is always the same: always imitable. Among the beautiful stories and sketches we will name only a few—all are good. There are Donald and Dorothy, by Mary Mapes Dodge; The Hoosier School-Boy, by Edward Eggleston; The Man with the Pea, by Hon. Jeremiah Curtin; Bones and Bow-wows, by Frank Bellew; Recollections of a Drummer-boy, by Harry M. Kieffer.

THE PACIFIC SCHOOL JOURNAL.

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ORGAN OF THE

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No. 2

ENGLISH COMPOSITION.

SECOND PAPER.

I. TO guide a class of little ones who have just learned to write, the teacher calls their attention, and tells them to watch carefully what she does. Perhaps she takes a glove from her pocket, drops it on the floor, picks it up, and lays it on the table. Each child is told to describe *exactly* what was done. Then the slates are examined. Half a dozen (*not* the best) are copied upon the board, so that all can see; and the keen little eyes will not be slow to detect the very errors which perhaps they themselves have made. In older classes the same method is useful, making the operation, of course, more complex. In our high school, not long ago, a simple chemical operation was performed, and the class requested to write its description.

We can all tie a bow-knot, but how many could describe the process so accurately that one who did *not* know how could perform the simple operation? So, while this is a composition exercise suited to the child in his first year at school, it may be used with profit in the most advanced classes.

II. Next to the description of actions—which I place first as the easiest means of fixing the attention—the description of the objects and pictures seems logically to follow. Here is an inexhaustible field, and like the last, suited to pupils of all grades.

To guide to an orderly and methodical manner of description, a series of questions concerning the object or picture to be described, may be placed on the board, and the pupils be requested to answer these questions in writing, not

catgeorically, but in such a manner as to make a connected story bearing no trace of question and answer. A few lessons of this sort will lead him to a proper method in painting his word-pictures.

First, we may require him to tell exactly what he sees, confining himself strictly to description. Another lesson may give an opportunity to draw upon the imagination in telling who the persons in the pictures are, how they came there, and what they are probably doing or saying. The more action there is expressed in the picture, the better fitted is it for a text, especially for young pupils.

This gives an opportunity to teach the difference between narrative and descriptive writing, and to draw for advanced pupils the line dividing objective from subjective thought.

Classes will be interested in selecting from their readers or other books passages illustrating these two kinds of writing. For older pupils, a pretty little poem to study in this connection is that of Wordsworth, entitled, "Daffodils," beginning, "I wandered lonely as a cloud."

The two modes of composition already mentioned seem to me especially valuable, and deserving of frequent use in all grades. They tend to develop closeness of observation, accuracy and definiteness of thought, and give ample scope for the play of the imagination.

III. Closely allied to these are "memory exercises," in which the teacher reads a short story, and afterwards requires the pupil to give a version of it in his own language. This may be joined with the former to lead the pupil to a clear conviction that words are only pictures; that the eye, the ear, and the tongue, all may be vehicles of the same thought.

IV. A variation of this exercise may be made for children somewhat more advanced, by asking them to write in their own language an account of some story or book which they have read. Here, again, is something fitted to all grades. What are the essays of our ablest reviewers but the highest form of this very kind of composition, made complex indeed by the addition of their own profound criticisms?

V. Next we may place narrations of the pupil's own personal experiences on any given occasion; his observations from a given point, as from his own window or the school-house door, on the way to school, or on a holiday ramble. The *Literary News* thus relates the first effort of the poet Longfellow in the field of letters:

"When our great poet was nine years old, his master wanted him to write a 'composition.' Little Henry, like all children, shrank from the undertaking. His master said, 'You can write words, can you not?' 'Yes.' 'Then you can put words together?' 'Yes, sir.' 'Then,' said the master, 'you may take your slate and go out behind the school-house, and there you can find something to write about; and then you can tell what it is, what it is for, and what is to be done with it, and that will be a composition.'

"Henry took his slate and went out. He went behind Mr. Finney's barn, which chanced to be near by, and seeing a fine turnip growing up, he thought he knew what that was, what it was for, and what would be done with it. A half-

hour had been allotted to Henry for his first undertaking in writing compositions. In a half-hour he carried in his work all accomplished.

MR. FINNEY'S TURNIP.

'Mr. Finney had a turnip,
And it grew, and it grew;
And it grew behind the barn,
And the turnip did no harm.

'And it grew, and it grew,
Till it could grow no taller;
Then Mr. Finney took it up,
And put it in the cellar.

'There it lay, there it lay,
Till it began to rot;

Then his daughter Susie washed it,
And she put it in the pot.

'Then she boiled it, and she boiled it,
As long as she was able;
Then his daughter Lizzie took it,
And she put it on the table.

'Mr. Finney and his wife
Both set down to sup;
And they ate, and they ate,
Till they ate the turnip up."

The latest number of the magazine from which this was taken, received a day or two since, contains a note from Mr. Longfellow disclaiming the authorship of these lines. But *somebody* wrote them; and the teacher's manner of setting his pupil about the task is worthy of commendation, whoever he may have been.

VI. A frequent use of "word exercises" will be found to give facility in the use of language, and to assist in the art of defining, which is a rare accomplishment. Any number of words from one to a dozen, according to the grade of the class, is given, and the pupil desired to embrace them in one or more connected sentences. Sometimes he may be limited to a certain number of lines, teaching him thus conciseness of style; sometimes to a certain number of minutes, training him to promptness and rapidity of thought. Sometimes the words may be such as to suggest a topic; sometimes, with intelligent and well-advanced pupils, words with little or no apparent connection may be selected to afford scope for ingenuity in combining them.

It is presupposed that the study of speller, dictionary, and word analysis has made the meaning plain of any unfamiliar words given; that the chemical elements (to use the analogy given this morning) have been studied before the compound is required.

As a variation of this exercise, a collection of phrases or short disconnected clauses may be given, to be expanded and combined in a variety of ways. These synthetic exercises are especially useful. For the very youngest pupils, the teacher might make a sort of game, by having a quantity of small cards with a word on each. Different colors may be used, printing nouns on one color, verbs on another, and adjectives on a third, and allowing each child to form sentences by combining them. With a few simple verbs, like am, is, go, see, like, have, etc., and a good supply of nouns and pronouns, many combinations can be made.

VII. A short poem furnishes material for a variety of exercises oral and written. Let us suppose a class averaging thirteen or fourteen years of age are ready for their language lesson. The first order is, "Open your blank-books and prepare for a dictation." That they may set about their work intelligently,

you read to them the verses that are to form their lesson, perhaps the first two stanzas of Bayard Taylor's "Song of the Camp." They listen attentively, and afterwards write it carefully in their books as you dictate, one line at a time. By a series of questions, the meaning of the author is brought out, unfamiliar geographical and historical allusions being referred to the class to be reported on at the next lesson. Books may then be exchanged for correction, one pupil writing the lesson correctly on the board as a model. The next step naturally requires of the pupil, in his own language, the meaning of the author, given orally in complete grammatical sentences, members of the class being encouraged to criticise freely. When a full understanding has been reached, they write a paraphrase on the opposite page of their blank-books. So, at different times, the whole poem is taken up, or such portion of it as seems desirable, the class committing to memory selected passages. Bryant's "Hymn to a Water-fowl," Sprague's "Winged Worshipers," and many of Whittier's shorter poems are admirably adapted to such a use. There is, in fact, no limit to the amount and variety of work that may be founded on such a text. There seems to me hardly any exercise more improving than one of this kind, based always on a poem of real merit. One may with such a groundwork teach everything which pertains to English composition, from the mere mechanics of the art—spelling, punctuation, and capitalizing—to the formation of style and the use of rhetorical figures. After a very thorough study of one or two poems in this way, pupils will be prepared to make transpositions and paraphrases intelligently. The dictation is by no means an unimportant point. Pupils in these days of written examinations learn to depend on their eyes to the detriment of theirs ears. We have gone from the extreme of oral questioning to the opposite one of written test work from written questions, and are in danger of neglecting to educate the sense of hearing.

KATE B. FISHER.

Oakland High School.

DECORATE YOUR SCHOOL-ROOMS.

THE school-room is the home of youth, the sanctuary from which he draws inspiration, and the silent educators, embodied in the walls, expressed in the arrangement of the furniture, and whispered by the very air about him, all conspire to mold his character. Floors should be kept scrupulously clean, windows clear of all obstruction, and the walls decorated with appropriate mottoes and pictures. Interest the pupils in beautifying the school-house and grounds, and make each one feel that he has an individual interest in keeping them in the best of order.

Soon the fruits of such a policy will be manifest in an increased interest in all school work, a laudable pride in the appearance of the premises, and more willing obedience to all just demands.

"A thing of beauty is a joy forever."

Teachers, try it.

SENTENCE-MAKING.

THE following exercises and illustrations are taken from my teacher's scrap-book. If teachers desire to test the accuracy of their pupils by a very simple test, let them try the exercises with their own classes.

Directions.—Write on slates or paper three simple declarative sentences, and make each sentence consist of only two words—a noun and a verb.

Model sentence, *Ships sail.*

The following sentences are printed exactly as written by pupils in the several grades of a city school, to which the preceding exercise was given as a test of skill in the actual use of language, after long-continued drill in parsing and analysis and technical grammar. The teacher will first require pupils to point out orally in the class the faults in construction, capitals, spelling, or punctuation, and then to rewrite the illustrations in correct form.

Rule for Correcting.—Begin each sentence with a capital letter, and put a period at the end of the sentence.

Fourth Grade. (Av. age 12.)

1. sweet flower
2. henry study
3. New hat
4. yesterday rained.
5. kind dog
6. Man's going

First Grade. (Av. age 15.)

1. She sings
2. Boys runs
3. white houses
4. Come here
5. Mary shall
6. Sun shines

EXERCISE 3.

Change each of the three sentences that you wrote in the preceding exercises into an interrogative sentence; that is, a sentence in which a question is asked.

Directions.—Use only three words in each sentence. Begin each sentence with a capital, and end the sentence with an interrogation mark.

Model sentence, *Do ships sail?*

SENTENCES SELECTED FOR CRITICISM.

From Fourth Grade. (Av. age 12.)

1. is their a class
2. does horses run
3. dose beese sting?
4. The flys fly.

From First Grade. (Av. age. 16.)

1. did William?
2. will Mary study.
3. How will we go.
4. Aint Mary good?

EXERCISE 4.

Change each of the three sentences that you wrote in the preceding exercises into an exclamatory sentence; that is, a sentence that expresses wonder or surprise.

Directions.—Begin each sentence with the word "how," and end the sentence with an exclamation mark.

Model sentence, *How the ships sail!*

SENTENCES SELECTED FOR CRITICISM.

The following sentences are exceedingly bad. There is not a single exclamatory sentence among them. Change them into the proper form.

Fourth Grade. (Av. age, 11.)

1. Some dogs *is* kind.
2. Why! has John *went*!
3. Why harry plays
4. I am! going to school!

First Grade. (Av. age, 15.)

1. Children will *cry*!
2. Oh horses sleep.
3. Bark dogs
4. Sing birds!

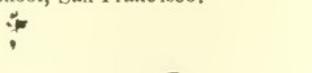
INCORRECT ENGLISH.

Rewrite in correct English the following sentences selected from a set of school compositions. The misused or misspelled words are italicized. Teachers will have the correct spelling put upon the blackboard.

1. I hope when I *will* be grown up I will [shall] have to cook.
2. I would like to have her *learn* me how to cook.
3. One day my mother left my sister and *I* [me] in charge of the house.
4. When I got to the *bakers* I saw some nice *creem* *candy*s.
5. So *me* and my cousin *sayed* we were going to make *beaf-stakes* for supper.
6. We made a *spunge* cake, and it tasted *awful* nice.
7. My tea was *to* strong, and my *bisquits* *to* flat.
8. In my opinion I think cooking is the *principle* thing.

Girls' High and Normal School, San Francisco.

JOHN SWETT.



ATLANTIS.*

WHERE now the unbroken, boundless
billow flows,
Where sports the porpoise and the grim
shark's haunt is,
The golden slopes and purple peaks arose
Of lost Atlantis.

An island realm amid the Atlantic wave:
So runs that marvelous legend of past
ages,
Which the wise Greek accepted from the
grave
Egyptian sages.

* The legend of Atlantis, according to Plato, was received by Solon from the Egyptian priests at Sais, who claimed to have records of an antiquity unknown to the Greeks. Not the least curious part of it is that which relates to the Western Continent.

"Once a mighty, warlike power, rushing from the Atlantic sea, spread itself with hostile fury over all Europe and Asia. That sea, indeed, was then navigable, and had an island fronting that mouth which you in your tongue call the Pillars of Hercules; and this island was larger than Libya and Asia put together, and there was a passage hence for travelers of that day to the rest of the islands, as well as from those islands to the whole opposite continent. . . . In that Atlantic island was formed a powerful league of kings, who subdued the entire island, together with many others, and parts also of the continent; besides which they subjected also to their rule the inland parts of Libya as far as Egypt, and Europe also as far as Tyrrhenia. . . . Subsequently, however, through violent earthquakes and deluges, which brought desolation in a single day and night, . . . the Atlantic island was plunged beneath the sea and entirely disappeared; whence even now that sea is neither navigable or to be traced out."—*The Timaeus*, "Plato," Vol. II., pp. 328, 329, Bohn's Edition.

Atlantis figures largely in literature as a symbol or a myth, but rarely, if ever, as a possible reality.

A realm of rivers, vales, and valiant men:
Be it a myth or well-preserved tradition,
To-day in fancy we may build again
That early vision;

Behold once more, with its empurpled skies,

Mountains and groves and living sons
and daughters,
Behold once more the vanished land arise,
Green from the waters;

Where now the unbroken, boundless billow
flows,

Where rolls the porpoise and the fell
shark's haunt is,

The steadfast promontories and high plateaus
Of old Atlantis.

A land it was of love and hate and strife,
Of unconsidered huts and lordly palaces;
There men before us lived their little life
Of hopes and fallacies;

The same old life, the same old ceaseless round
Of fading yesterdays and brightening
morrows,
Till parting Age went stooping to the
ground
With many sorrows.

Cities, sea-fronting, cooled by ocean gales,
Were there, or gleaming far down fruit-
ful valleys;

And harbors thronged with sun-illumined
sails,
Many-oared galleys;

High places where the gods' great altars
burned;

Broad pasturage and quiet herds of cattle;
And pageants of proud conquerors returned
From war and battle.

There rose the fiery-orbed and lurid fame
Of many a long-forgotten king or hero;
Loomed many a crime-obscured, accursed
name—
Borgia or Nero.

Huge armaments went forth, from that
serene,

Sea-tempered clime, to wars and subju-
gations;

For isle-enthroned Atlantis was a queen
Among the nations.

The neighboring islands owned her sovereign
sway;
And kings in council at her courts as-
sembled.

Even Europe (so we name those shores to-
day),
Even Europe trembled,

When through the Straits of Hercules, along
The affrighted borders, swept the fierce
invaders,
And from her thousand war-ships leaped
the strong
Swimmers and waders.

Before Columbus saw the floating boughs,
And odorous shores that seemed some In-
dian Spice-land;

Before the adventurous Norsemen pushed
their prows
Westward from Iceland;

Ages before Norsemen or Genoese,
The elder time (so said the Egyptian an-
nals)

Had known beyond the Atlantic and the sea's
Dissevered channels,

Another continent and other men:
Land of deep bays and many a mighty
river!

Oh! land we know! long lost, but found again,
And loved forever!

Was it the colonies Atlantis sent,
That passed before the unremembering
races,

But left in stone, for our astonishment,
Mysterious traces?

Temples by tangled forests over-grown,
Where hung the wreathéd snake and
prowled the puma,

Before the Aztecs came and reared the
throne
Of Montezuma!

The children perished when the mother fell;
When fair Atlantis in her pride and glory
Went down and left but alien tongues to tell
Her tragic story.

For while her princes minded pomp and
feast;
Her warriors, their far-sweeping enter-
prises;

The merchant, his rich argosies; the priest,
His sacrifices;

While swarmed the toiling captives at their work,

Raising the vast, eternal mausoleum;
While shouting ranks filled high the ter-
raced cirque
Or Colosseum;

And maid's were wooed, and new careers
begun,

And cheerful soothsayers presaged the
ending
Of loves and wars (but could not see the one
Great Woe impending);

Then ominously the earth, beneath a thick
And awful gloom on sea and land, resem-
bling

Nothing of day or night, heaved with a sick,
Convulsive trembling.

The rivers paused, the reeling ocean roared;
The feverish hills gave fitful moans and
flashes;

And fire and cloud through yawning fissures
poured,
Lava and ashes.

The waters, from the bare rock-rooted
world

And ghastly deep-sea bases, drew asun-
der,
And closed again, with howling chaos
hurled,
Whirlwind and thunder.

The land was sea, the sea was land! as if
The loosened globe were suddenly forsak-
ing

Its old foundations; mingled sea and cliff
Tossing and breaking.

They in the cities to the country fled,
They of the hills and plains ran shrieking
toward;

While all the earth seemed eddying with a
dread,
Slow shudder downward.

Some in deep caves among the mountains
hid,

Some to the mounds and pyramids went
flocking;

But down went mountain, mound, and
pyramid,
Horribly rocking.

So all that island realm, from shore to
shore,

Shaken and heaved with direful undula-
tions,

Sank utterly; and Atlantis was no more
Among the nations.

Blotted the records of her great events;
The sea closed over peak and promon-
tory,

Altars and gods, and men and monuments
Of art and glory.

There now the unbroken, boundless billow
flows,

The porpoise tumbles, and the grim
shark's haunt is;

And even the place and epoch no man
knows
Of lost Atlantis.

Cold as Oblivion, that awaits all flesh,
All realms and races, is the wave which
covers

That land where once was passion and the
fresh
Young life of lovers.

The bones of ships upon her temples rest,
Huge-ribbed leviathans, and the ooze of
ages.

Far, far above her shrouded, peaceful breast
The world-storm rages.

No life amid her ruined chambers now,
Save where some dull sea-monster peers
and burrows;

Across her sky the passing steamers plow
Their cloudy furrows.

There to and fro the world's strong carriers
fly,

The shallow-breasted ships, the white-
winged navies;

Nor know that down, far down that nether
sky
A nation's grave is.

New wealth, new wonders, new ambitions
toss

Above her; and the thought-transmitting
cable

Thrills the dim ocean solitudes across
That land of fable.

FRACTIONS FOR BEGINNERS.

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EQUIVALENT FRACTIONS.

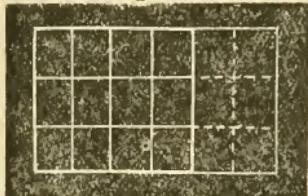
If we take any fraction, as $\frac{4}{6}$ (Fig. 1), and divide each of its parts into equal parts still smaller, it is evident that the smaller these latter parts are, the greater will be the number of them required to make up the unit. Suppose we divide $\frac{1}{6}$ into 3 equal parts, it will take 18 such parts to make up $\frac{6}{6}$, or the whole unit; and hence each part (Fig. 2) is $\frac{1}{18}$.

Fig. 1.



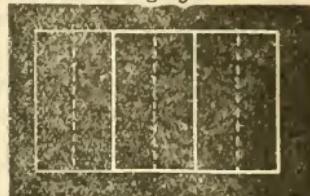
$$\frac{4}{6}$$

Fig. 2.



$$\frac{1 \frac{2}{8}}{18}$$

Fig. 3.



$$\frac{2}{3}$$

The fraction $\frac{4}{6}$ may therefore be changed into $\frac{1 \frac{2}{8}}{18}$.

The value of the given fractional part is lessened threefold; but this is counterbalanced by taking (Fig. 2) three times as many of the smaller parts as were before taken of the larger ones (Fig. 1). And, as two contrary operations of equal extent (such as multiplying and dividing by the same number) neutralizes each other, the value of the quantity operated on is not altered.

Instead of dividing the fractional part, we often have occasion to multiply it. Doubling $\frac{1}{6}$, for example, will give $\frac{1}{3}$ (Fig. 3); that is, $\frac{2}{6} = \frac{1}{3}$, and $\frac{4}{6} = \frac{2}{3}$.

Instead of 3 and 2, any other numbers might have been employed as multipliers or divisors. Similar results might be obtained by operating on any other fraction whatever, and consequently,

The value of a fraction is not changed by multiplying or dividing both terms by the same number.

$$E. g., \quad \frac{3}{4} = \frac{3 \times 7}{4 \times 7} = \frac{21}{28}.$$

The multiplier here being $\frac{7}{7}$ ($=1$), the value is unchanged.

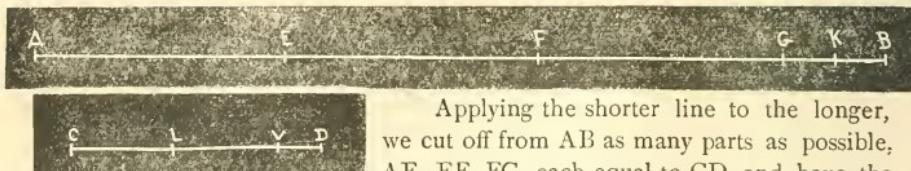
$$\frac{3}{3} \frac{0}{6} = \frac{30 \div 6}{36 \div 6} = \frac{5}{6}.$$

The divisor here being $\frac{6}{6}$ ($=1$), the value is unchanged.

GREATEST COMMON DIVISOR.

Though not pertaining exclusively to fractions, it may be shown here how the common rule for finding the greatest common divisor is obtained.

Let it be required to find an exact measure or divisor of two given quantities, represented by the lines AB, CD.



Applying the shorter line to the longer, we cut off from AB as many parts as possible, AE, EF, FG, each equal to CD, and have the piece BG over. We next cut off CL and LV, each equal to the remainder BG, and let us have the piece DV over. Now, continuing the process (when necessary) of cutting off parts equal to the successive remainders, suppose that DV ($=BK=KG$) is contained an exact number of times in BG; then it may be easily shown that DV is a measure of the given lines.

In this particular example DV is contained twice in BG, and therefore twice in CL or LV; or, altogether, it is contained five times in CD. It is also contained five times in AE, EF, or FG; or, altogether, fifteen times in AG, and seventeen times in AB. Hence, it is a measure of each of the given lines AB and CD.

Like reasoning will hold good in other cases, and hold good in general; nor will it be vitiated by the fact that (as we shall see hereafter) some lines are incommensurable; that is, have no common measure at all.

The following principles will now be evident:

1. If any quantity, as DV, be a measure of another, as CD, it will be a measure of any multiple of that other, as AF, AG, etc.

Note.—The multiple may be actually divided into parts each equal to the measure.

2. If any quantity, as DV, measure two others, as CD and BG, it will measure their sum BF, or their difference DL.

Note.— $FG=CD$, and therefore $BF=CD+BG$. Again, $CL=BG$, and therefore $DL=CD-BG$.

3. DV is not only a common measure of AB and CD, but it is their greatest common measure.

Being a measure of CD, it must be a measure of AG, a multiple of CD (1); being a measure of AB and AG, it must be a multiple of their difference BG (2); being a measure of BG, it must be a measure of the multiple CV (1); and being a measure of CD and CV, it must be a measure of their difference DV. Now, as the greatest measure of any quantity is the quantity itself, DV must be the greatest common measure of the given quantities.

This procedure and course of reasoning is as applicable to numbers as to lines.

Example.—Suppose $AB=68$, and $CD=20$:

$$CD=20)68(3$$

$$AG=\dots 60$$

$$BG=\dots \overline{8})20(2$$

$$CV=\dots \dots 16$$

$$DV=\dots \dots \overline{4}8(2$$

8

The reason of the rule usually given for finding the greatest common divisor is now intelligible.

HOW TO MAKE A USEFUL HERBARIUM.

I SUPPOSE that a few pupils in each school, and a majority of the teachers on this Coast, would like to know an easy way to learn the correct names of the wild trees, shrubs, and herbs which are daily seen on the way to school. To such teachers and pupils this article is addressed.

The plan, in brief, is this: Dry several specimens of each kind of plant in blossom; make duplicate sets, in which the plants are numbered, specimens of the same kind bearing the same number, and send to me by mail one set. I will send in return the names corresponding to the numbers. The set which you have retained can thus be labeled and form a sort of dictionary, to which you may refer when you wish to know the name of a plant. Exactly how to do all this is what I shall now attempt to show.

To begin with, get as many old newspapers, useless pamphlets, and last year's almanacs as possible, and enough of any kind of blank paper to make several hundred labels, which should be about two inches wide by three inches in length. Get also several boards a foot or more in width by about two feet in length, and two or three stones, or anything else that will make a weight of thirty to fifty pounds with which to press the drying plants. Several may club together and do all the work at the school-house. The plants could then be collected on the way to school, and put in press before school time. Only such plants as are fully in bloom should be gathered. As a rule, get specimens which have young seed-pods as well as flowers. Plants less than one foot in height should be pulled or dug up, so that the whole may be preserved, and specimens of larger plants should be at least fifteen inches long. If some of the leaves grow from the ground, these and others unlike those growing upon the flowering branches, should go with the flowers to make a complete specimen. Get at least two specimens of each kind of plant.

The plants may be put to dry in this way: Fold newspapers to half-page size; put two or three together, and lay one or more plants upon them, with a label bearing the name of the collector and the date; carefully cover the plants with two more newspapers, upon which place more plants with a label, and so on, until all the plants are sandwiched between papers. Next put this bundle upon the floor in a corner of the room, or anywhere out of the way, and lay a board upon it, weighted with from thirty to fifty pounds. At noon change the plants to dry papers, and spread the moist papers in the sun, care being taken that they do not blow away. After school change the plants again. The next day change the plants before school time, and if new ones are brought, put a board between them and those already in press. The latter need not be changed till evening, and after that daily until they are dry. Some plants dry much faster than others. It is better to separate such plants from the more juicy ones by means of a board. Very small plants may be put in old almanacs and the like, and pressed by themselves. Better-looking specimens may be made and much time saved in changing the plants if they are placed between the leaves of thin sheets of paper folded once. These papers and the contained plants are changed to dry papers without touching the speci-

mens, which consequently give no trouble by wrinkling or getting out of place. The dry plants, whether in these specimen sheets or not, should be put away in single folds made of ordinary newspapers cut or torn into half-page size. Be sure that in all these changes the labels are kept with the plants. At the close of the season, or any time when a considerable bundle of plants are dry, make two sets of specimens exactly alike, arranged in the same order and numbered alike. Then write all the numbers upon as many lines of foolscap paper, and after each number write the date of collection, the name of the collector—if the collection was made by several individuals—and the name, if any, by which the plant is known in your locality. The name given it by the Indians or Mexicans would be particularly important. If you have found out anything worth telling about any plant, put that down also. Remember that no writing, except the numbers, must be put on the labels which you send to me with the plants. Wrap the bundle in stout paper, and tie it carefully with twine. Then plainly direct it to me, at the Girls' High School, San Francisco. Mark the package "Plants." The postage will be sixteen cents a pound, or one cent an ounce. The package should not weigh more than four pounds. Send by letter postage the list of numbers and accompanying notes.

It is possible that one or more of your plants may prove to be new to science. Such shall bear your name. You may make important discoveries concerning the habits, etc., of some plant. Such facts shall be published to your credit. If you are the first to report known plants as growing in your locality, your name may appear in connection with them in a botanical book.

Since nearly all the specimens will be useless to me, further than their testimony as to their place of growth, it will serve our purpose just as well to put all the best-preserved plants in one set to be retained, while care is only taken that complete specimens, showing usual size, form, flower, and, when possible, fruit, shall make up the set which is to be sent to me.

All plants which have flowers with four sepals, four petals, and six stamens must be collected in fruit as well as in flower. After the flowers are collected, mark the place where some of the plants are left growing, and when their pods begin to ripen gather specimens to be put with those which were collected when in bloom. As a rule, it is desirable to have the pods of all plants belonging to the Pea family.

After the names are received, the plants with their labels may be glued fast to sheets of manilla wrapping paper, and these can be made into a book with pasteboard covers cut out of boxes (such as are thrown away in every country store), the whole costing about two cents for each plant, if the work done be a labor of love. A "Pub. Doc," the bigger the better, useless as a book, can be made the receptacle of fifty or more specimens, which may be fastened to every third or fourth page, the remainder being cut out to give room for the plants.

The work here laid out amounts to considerable in the aggregate; but it can all be done without taking a minute from school hours, and the result is certainly worth the cost.

VOLNEY RATTAN.

Girls' High School, San Francisco.

A HOODLUM.

CHAPTER II.—TAMING HIM.

CHILDREN are hard to rule, but easy to lead. Imitative by nature, they like to do as they see others do, to be what they think others are. They take those who are stronger for models, and reflect the opinions of those they deem wiser than themselves.

Donald had been suddenly moved into another life. The bustle of the city was exchanged for the quiet of the mountains. A dearth of excitement, the solitude of the hills, and the change of occupations made him very homesick for a few days; but childhood is elastic, and he soon began to feel at ease in his new home. He clung close to Carl for companionship, and Carl exerted himself to please the boy, talking to him in that semi-humorous tone of banter so pleasant to most boys, explaining why he did each part of his work the way it was done, and what he intended to do with each article he made. Though the boy was at first much more hindrance than help, Carl patiently instructed him how to do the various labors suited to his age and strength, and encouraged him by precept and by example to keep busy at something useful. Yet the boy did not think that he was working hard.

"I will let you feed the calf this morning while I am milking," Carl would say. "Do you want to let out the chickens? Then scatter some corn about, so that they may find their breakfast ready when they come out. Then, if you will be careful to drive in the nails straight, I will let you help me make these frames. Would you like to own that white pullet? If you will pull all those weeds in the strawberry patch, I will give the pullet to you. And when the weeds dry for a day or two, you may pull those basket weeds and make a big pile, and we will have a rousing big bonfire that the whole valley can see."

Yet Carl gradually taught Donald to do certain things as a part of the boy's share of the work, by which he paid for the food he ate and the clothes and the books that he needed.

"Work is the father of true pleasure," Carl would often remark. "Money and the things we buy with money represent the work we do every day. You feed and tend to the chickens, and they pay you in eggs, which you can exchange for what you like. The cows pay us for their feed with their milk and butter. All give something for something, and you should never expect to get something for nothing."

"What do I give for my keeping?" inquired Donald one day. "I work some; but I heard that man who was here the other day say that most boys did not earn their salt. Does salt cost so much?"

"It used to cost considerable," said Carl, laughing. And then he explained the origin of the phrase. "Now, how do you pay for your salt?" inquired Carl.

"I work some, and the man said I was company for you, and—and I guess that's about all."

"Not quite," said Carl, laying his hand kindly upon the boy's shoulder. "I take pleasure in seeing you grow wiser and better; in knowing that you try to please and to help me in return for what I do for you."

It was now three months since Donald had come to Camp Comfort. These three months had made a great change in the boy. His speech was now almost free from slang and vulgarity; for he had heard none in these three months, and he had unconsciously adopted the language he now heard used. Children learn foreign languages with great readiness; but they learn other forms of their own language with still greater ease. The only reason why school-children do not adopt the language of the teacher to a greater extent, is because they hear for a much greater part of the day the speech of parents and playmates. Donald had gained in strength of body. The pure air, the mountain water, the regular habits of life, the exercise he took, and the wholesome food he consumed, all tended to build up a strong, healthy body. A school without a regular programme is worth but little; and life without a certain amount of fixed work at stated times is more than half wasted. The greater number of country boys who outstrip their city cousins in the race of life find their greatest help in the work they have to perform in early childhood.

Very few parents give the attention that is needed to build up a healthy body for the child. It may not be amiss to give briefly the outline of Carl's treatment of Donald, who had became in three months so rugged and healthy. At eight o'clock the boy went to bed, and slept until daybreak. Nine hours, or even ten, is not too much time for a child to sleep. Lying in bed after a child has waked in the morning should not be encouraged; but while a child sleeps, do not wake him up because the older people have slept enough. Donald slept with Carl from choice; and those physiologists who assert that it is unhealthy for people to sleep together, especially the young with the old, reason more from theory than from observation. The young of all animals crawl near their parents for warmth, and children show by their own preference that they sleep more comfortably with another person.

Carl slept with the windows and doors wide open, making his room as far as possible a part of the out-of-doors. From this custom, Carl had made himself and Donald proof against the colds and morning headaches that trouble so many people. Getting up with or before the sun, the morning chores were attended to before a fire was built and breakfast cooked. About nine o'clock a warm breakfast was eaten. No tea nor coffee to poison the blood and hinder digestion, but an abundance of cold water or fresh milk was used at each meal. It is not unhealthy to drink at meals, provided cold water or milk be used. For bread Carl used middlings, both on account of its superior value as food and because it was cheaper. Corn meal, oat meal, and fine flour were used to give variety to the food, while cracked wheat, hulled barley, and other grains were not despised. Pepper, peppersauce, mustard, and other abominations were little esteemed at Camp Comfort; but the "sweet-tooth" of the boy was pleased with an abundance of white sugar and honey. Though there was a great variety of food used at Camp Comfort, not more than two or three kinds were cooked at each meal, and oftentimes but one. A dish of beans

cooked with milk, and crackers to eat with the soup from the beans, was enough for a good meal; while a bowl of berries and some bread, made as good a supper as any one needs. At four o'clock the second meal was eaten; and at night, if the boy desired another meal, a bowl of milk and stale bread, or milk and mush warmed slightly over the stove, was enough for health. Plain, coarse food kept the teeth well scoured and white; for with proper food one does not need to artificially scour his teeth any more than his kneepans need scouring.

Children need very little clothing in the greater part of California, and the little ones can run around the whole year bare-footed and bare-headed, and be the healthier for it. Yet children differ in the quantity and quality of the clothes they need. There are some who take cold if they do not wear woolen next to the skin night and day; there are others who will take cold whenever they put on a woolen shirt. The chief points Carl tried to observe in selecting Donald's every-day clothes were these: To have the pantaloons and waist of strong, thick cotton cloth, so that they could be washed every week; to have them quite loose at the waist; to have the collar of the waist and jacket loose and low, and the waist quite loose, so as to leave ample room for the expansion of the chest. The shirt was made of stout, unbleached cotton, loose at the collar and long in the sleeves. These, with a hat that was seldom worn, and a pair of boots that were worn a part of the day and then put aside to look at, completed the boy's clothing. Donald almost dreaded the weekly visits to Santa Barbara, when Carl's pride compelled the wearing of hats and boots, and sometimes even those instruments of torture—a starched shirt, a paper collar, and a pair of suspenders that were always coming off the shoulders.

Frequent plunges into the carp-pond kept the boy's skin clean and healthy, and he needed no comb or brush; for Carl kept the lad's hair cropped close to his head—"in good fighting shape," Donald said.

Though useful work occupied the boy's time during the most of the day, yet Carl was careful to give Donald certain parts of each day for play—times when he could do what he chose, and go where he wanted to, provided he returned at the proper times.

These hours were generally the very busiest of Donald's time. The pleasure of being entirely one's own *boss* is dear to every one's heart.

One of Carl's earliest purchases for Donald was a set of tools. A little ax, a hatchet, hammer, a saw, a chisel, a square, and a brace and bits, all of good quality, made the boy happy for many an hour. And these tools added, not only to his happiness, but to his education. He liked to use his own tools to fix up a hen-coop, to mend a broken panel, or to make a new water-wheel. Miniature ships and boats of all kinds floated in the little carp-pond, and whirling windmills ornamented every corner of the honey-house. The few pounds of nails and the few feet of lumber he used were cheap payments for the education of the hand and eye, the sense of power over the forces of nature, and the habits of useful industry which the boy was constantly gaining.

Nor did some things which the boy made lack money value. Manzanita, that most beautiful of California woods, grew near Camp Comfort, and the lad soon learned how to make very pretty match-safes and picture-frames from the

roots of the manzanita. These he varnished, and sold in Santa Barbara for good prices, and used the money to buy new tools, varnish, etc.

Then Carl insisted that the boy should pay for all breakages, or other damage which he did; not on account of the money value of the articles destroyed, but to build up a regard for others' property, and a sense of responsibility for his own acts, which are far beyond a money valuation.

There were three kinds of property at Camp Comfort. One part was looked upon as common property, belonging to Carl, but to be used by either. Another part was Carl's private property, with which Donald had no right to meddle, and which he must ask permission to use. The third part was Donald's private property, and Carl was very careful to ask the boy's permission to use this whenever he had use for it, and showed by his actions that he recognized Donald in that respect as an equal.

Treat a boy as a man, and he will be manly; treat him as incompetent to care for his own property, and he will not be much better than your estimate. From the start, Carl had tried to gain the love and respect of the boy; for without these he would have made but sorry work with Donald. "The first step towards winning the love of a boy is to love him. Love need not be blind. It may even make the sight keener for defects and shortcomings. But true love draws out and dwells upon the nobler qualities which are present in almost every person; it helps to repress the bad and to encourage the good in the being that is loved, and finds excuses, while it does not gloss over the fault. Yet love seldom lives long when no return is made; for it grows and feeds upon the love it begets, and widens as it grows stronger. Those who give us pleasure we like, time and a continuance of the pleasure deepens our liking, and a knowledge of the return of our affection, mingled with a desire for possession, begets love. We do not love others people's children as we do our own, simply because they are not our own. Teachers feel a kind of ownership in the pupils who have been with them for a long time, and those whom *we* teach from the A B C's are always the best taught of our pupils. Then an affectionate pupil ministers to our self-love. The tender, clinging arms, the warm, smiling look, the loving pressure of lips and cheeks, are only marks of the high place we hold in the child's regard.

"I love you better than any body else in the world," says the sweet, young deceiver.

And can you reprove the child, even if you know it speaks not the truth?

The love of the child differs from that of the man: it is more quickly given, but not so strong; dependent in its nature, it is given more as a response than as an independent offering; mingled with gratitude for favors, it contains a great deal of childish tribute to the unknown amount of power and learning the child imagines the older person to possess. As the savage tries to propitiate the unknown spirits with gifts and sacrifices, so the child gives its offerings to the powers that sway its destinies. Sad it is when those powers conflict.

"The teacher says that smoking is wrong; but papa smokes," reasons the perplexed boy. "The teacher says it is wicked to swear, and only bad men do so; but Uncle John swears, and he is not bad."

And truth does not always prevail.

CINCINNATI AND CLEVELAND.

SECOND PAPER.

MR. PEASLEE, superintendent in Cincinnati, has an original method of drilling on the separation of numbers into their parts, so that the pupil may be able to add by tens; $27+8$ would be added 27 and 3 are 30 and 5 are 35 ; $35+9$ would be added 35 and 5 are 40 and 4 are 44 , and so on. The pupil separates 8 into $3+5$, and 9 into $4+5$, so as to make in the first place the even 30 , and in the second place the even 40 . The classes add in this way with considerable facility, and with great accuracy.

ORTHOEPI.—Great attention is given in both cities to accurate pronunciation of words. This is an easy matter when the pupils are taught reading as described above. The children in the lower divisions understand the meaning of the marks in the dictionary better than many teachers in some districts.

GENERAL HINTS.—1. Teachers make free use of their blackboards in parts that can be spared for lists of deserving pupils, headed "Our Climbers," "Our Wide Awakes," "Best Slate Work," etc.

2. When a teacher erases writing or printing in a reading lesson, she calls for the name of the word as she erases it. Of course she does not rub out regularly from the beginning to the end of the line. This compels intense attention, and develops quickness and accuracy in observation. The same course is adopted when erasing music.

3. The staff is generally painted on the board for music teaching.

4. Some teachers keep a record of the work of the pupils on the blackboard, using crayons of different colors to mark failures in the different subjects.

5. In class exercises for vocal culture, brief selections are recited, calculated to develop clearness of articulation. The tone in which the pupils are to speak in these simultaneous exercises is indicated by the height at which the teacher holds her hand. A whole class will change with the greatest ease from a martial to a conversational tone.

6. In teaching music, teachers in Cleveland tell the pupils to sing the words of "Jack and Jill," or any other familiar piece, giving the sounds written by the teacher on the board to the successive words. This is better than singing *la*, or any other syllable to each sound. It must be understood that the singing by the pupils proceeds as the teacher writes the notes on the staff.

7. I witnessed a capital exercise in the class of Miss Stephan, in the Cleveland training school, in which the little folks (First Book) made their own practical problems in arithmetic. Each pupil, when called on, stated his own problem, and immediately solved it. The exercise could scarcely be surpassed as a language lesson, independent of its utility as a discipline to the mind in other ways.

8. Pupils are called upon to *sing* individually as well as *read* individually. This may be done, a line at a time, or a verse at a time. "Sing, Jimmy," brings Jimmy to his feet without hesitation.

CINCINNATI SPECIALTIES.

1. *Slates.* Every slate has to be scoured once a week, the frame as well as the slate itself. The "home exercise" of pupils in the lower classes consists in ruling their slates for arithmetic, spelling, etc. There is a definite form for corresponding grades to which all must adhere. The moral effect of these two rules in cultivating habits of cleanliness and exactness can scarcely be estimated.

2. *Literary Selections for Recitations.* Instead of using the recitation hour for mere amusement, or devoting it to the training of a few stars in declamation, one hour per week is spent in learning and reciting the choicest literary gems of the English language. A few minutes are taken during the opening exercises, usually, to teach the new selections. Eight lines must be learned in every grade each week. The teacher teaches the selections in school, line by line from the blackboard, explaining the meaning as she proceeds. The pupils repeat the gems individually, simultaneously, or by a combination of the two methods, so as to give as much variety as possible to the exercises, and thus increase their interest. A pupil who attends regularly will thus commit to memory over forty selections in a year, and in a school life of ten years will learn about four hundred of the best extracts from the best writers.

This practice was introduced by Mr. Peaslee three years ago, and has already given him a very wide and justly earned reputation. The benefits that follow from it are many.

a It cultivates the memory of the pupils.

b It stores their memories with the best writings at a time when these memories are most retentive.

c It is the best possible practical teaching of elocution. As the teacher puts the new piece on the board, she recites it line by line, carefully noting and slightly exaggerating the pauses, inflections, emphasis, and tone, and is imitated by her pupils. She repeats it until they give it in a manner to satisfy her. The whole of the work is done in a most spirited manner; so that, after a couple of years' practice, it is next to impossible for a pupil to speak or read in a drawling, monotonous manner.

d It assists greatly in teaching composition. The pupils gain large additions to their vocabularies; these additions consist of the words used by the best authors; and more than that, they are acquired in the connection in which they were used by the highest authorities.

e The learning of these selections constitutes one of the most practical methods of teaching a pure morality.

3. *Celebration of Authors' Birthdays.* In order to awaken a deeper interest in American authors and their works, the birthdays of leading writers are celebrated in the schools. For some time previous to Longfellow's birthday, the pupils learned selections from his works, and were taught incidents connected with his life. The results of these teachings were embodied in essays, and the best of these were read on celebration day. The selections from his works were also recited. Such exercises are calculated to make the pupils take a personal interest in the authors whose birthdays they celebrate.

CLEVELAND SPECIALTIES.

While the schools of Cleveland cannot be said to exhibit any novelties they have long been known in Europe, as well as America, to be fully equal, to any in the United States. To say this of them heralds their praise moderately. There seems to be no weak spot in the system. This is what one would expect after meeting superintendent Rickoff, and learning that he has been in charge of the schools for fourteen years. Balance, harmony, growth, are noticeable everywhere. The features that attract the attention of a visitor are:

1. There are no masters in the schools. I visited one school building where a lady presided over thirty classes, and is in every respect a success.
2. There is no disorder either in the school-rooms, in the yards, or on the streets.
3. There seems to be no direct restraint exercised by the teachers.
4. The spirit manifested by the teachers toward the pupils is perhaps the most characteristic feature of the Cleveland schools. They seem to have caught the true Kindergarten spirit of regarding children as beings to be kindly led and judiciously guided, instead of driven. They recognize the fact that the wisest way to eradicate evil is to develop the pure and good.

Canada School Journal.

JAMES L. HUGHES.

PEDAGOGIC PERCOLATIONS.

"**I**NSTITUTES are humbugs," "Teachers' meetings are a farce," was one of the very unprofessional and unpleasant remarks made at one of our late class meetings. The speakers unwittingly pronounced sentence against themselves, because the interest of class meetings must depend upon the teachers. If they do not agree with the speaker provided to open the discussion, it is their duty to say so, and to give the reason therefor. The principal speaker necessarily must offer much that is old to many; but even old thoughts presented in a fresh fashion may develop new ideas, stirring the pedagogic pond into wider and wider circles, preventing the utter curse of stagnancy. Perhaps I am more ignorant than others; but I seldom fail to learn something at a teachers' meeting. For instance, Miss Titus declared that many children were found who could not hear well. I still doubt whether the fault rests with the organ of hearing or with the power of attention. Certain it is, that, if a bell be tapped rapidly, or the table rapped in quick succession, some pupils will fail to give the correct number of strokes. This thought is but an enlargement of a previous one, yet the very extension may lead the careful teacher to the root of our trouble with inattentive children.

For some time I have advocated the training of the ear as well as of the eye. My attention was first directed especially to the art of hearing by the lack of that power in substitutes furnished by the Girls' High School. Nearly all of

these intelligent, well-educated young ladies when told the most simple method failed to understand and apply it; but if practically illustrated, or even indicated in writing, they grasped the idea, and were faithful in its application.

To train the ear equally well with the eye, let one-half of the recitations be oral, and pupils be frequently required to continue or complete the answer given by another. To make this of real service in training the ear, never permit recitations to be given in order. All must be on the alert to catch and continue the answer.

Another good method is, to stop frequently while giving instruction to the class, and call on some member of it to repeat what was just said. Require an exact repetition, of course adapting the words to be repeated to the capacity of the pupils.

Exercises in phonics are also admirable to train the ear in nicety of sound.

Miss Withrow's method of teaching music is most excellent for the same purpose. A part of this method I will try to repeat, premising that I have had but one lesson, and may err in an exact repetition, owing to my own auricular deficiency. Whether I err or not, I hope Miss Withrow will give the readers of the JOURNAL a full account of her very practical system of teaching music.

When it was proposed to teach music in the different keys in the primary classes, even in the seventh grade, I considered it an imposition, not understanding what was required, or the method of instruction. Miss Withrow's lessons enlightened me. Her method seems to resemble, in some points, that practiced in the best private schools in Germany. Children there are taught to sing at sight by learning that a certain position on the staff invariably indicates a certain tone.

Miss Withrow prefers to teach several keys simultaneously, to avoid fixing in the child's mind a belief that notes are immovable, and to impress the knowledge that, no matter how moved, they must all retain the same relative position; or, as she quaintly explains, "When the first *do*, which I think is the father of all the notes between him and the last *do*, which is the mother, moves to another street, all of the children, *re, mi, fa, sol, la, si*, and the mother *do*, must move in the same direction to another street. If you live on Filbert Street, and moved to Union Street, would you change your name? Neither do these notes change their names." No definitions are given, and the names of the different keys are not mentioned. However, Miss Withrow first draws a staff upon the board, and asks what it is.

"A staff."

"Is it a good staff?"

"No; it has no G clef, and no notes."

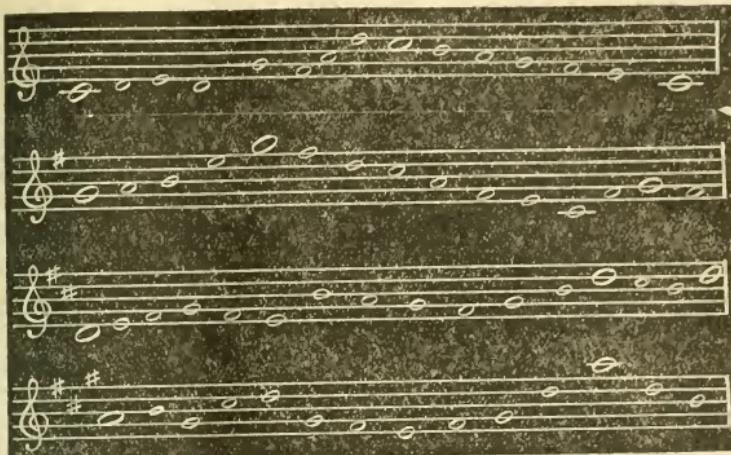
"But when a good carpenter makes a good ladder out of good material will it be any better because fifty men have used it?"

"No, ma'am."

"Well, this staff is just as good as though we had used it; but how do you know it is a staff?"

"Because it has five lines and four spaces."

The relation of syllables, not keys, is taught by strengthening the lines of the upper and lower *do*.



When preparing exercises for children's voices, attention should be paid to harmony of sound; and where the teacher is not sure of her power to prepare the proper exercise, she can copy some simple arrangement in each key from the Music Reader. Thus, although nothing is said of the different keys, an excellent foundation is laid for future technicalities, and singing the proper tones in irregular order admirably cultivates the sense of hearing.

AURELIA GRIFFITH.

Union Primary School, S. F.

SUGGESTIONS IN REFERENCE TO TEACHING UNITED STATES HISTORY.

IN commencing the study, a difficulty arises from the ignorance of the scholars regarding the history of the world. The latter part of the fifteenth century, and the beginning of the sixteenth, marked as they were by great and stirring events, were so different from our own age that the discoveries of Columbus cannot stand out in their just proportions and in clearness of outline until the scholars get a tolerably clear idea of the state of society, and of the difficulties that he had to overcome. A grand field for the teacher is thus presented at the threshold of the subject. A talk with the scholars will arouse their interest and open up new avenues of thought. A few extracts from some of the different lives of Columbus will probably lead members of the class to read the books themselves. An honest effort to present the subject in an attractive form will soon overcome "slowness of speech." If the teacher gets a clear picture of the times in his own mind, he will not fail to present a clear one to his

scholars. Our object should be to make the men live before us. Even to those who have not tried such a plan, is it not apparent that the scholars, as they carefully follow Columbus in his presistent and long-continued efforts to obtain assistance, will receive a clear and permanent impression that will have a germinating power in after life? The state of society may only be incidentally touched upon as they follow him in his struggles and in his triumphs; yet the life and manners and thought of the age cannot fail to grow in distinctness before their view. The dates and minor facts may be forgotten. That matters not. If only the date of his first voyage, whence he sailed, why he sailed, where he landed, and how his discovery stimulated enterprise, are firmly fixed in the mind, other details may safely be passed over, providing a strong picture has been produced. This can be done in much less time than at first thought may seem to be practicable. To fasten each lesson on the mind it may be required to reproduce it in writing an hour or two after it has been given. As this, in too many schools, may be all but impossible, owing to the large number of scholars under one teacher, it can be deferred until Columbus's life and discoveries have been fully talked over; and then, as an examination, they should be required to give fully all they know about the man and his achievements.

The era of the settlement of the country, usually so uninteresting, *ought* to be full of attractions. The settlement at Jamestown would naturally receive attention. Having traced the origin of that settlement, and shown how its difficulties and hardships were largely the necessary result of its organization, the history of the colony should be graphically sketched. Attention should be specially directed to the fact that so many *gentlemen*, or rather *cavaliers*, settled Virginia, and brought with them their peculiar political principles, as well as the habits of that class, which, modified by their surroundings in a new country, have influenced, not only the history of their own State, but also the history of the nation. In the history of the Plymouth Colony we have a subject worthy of our highest efforts. The meager account given in the text-book can produce little impression on the scholar's minds. Other books must be consulted. A knowledge of English history is here necessary to the teacher, to enable him to trace briefly but clearly the rise of the Puritans—to sketch their character, to explain their dogmas, to portray their unflinching devotion to the truth, their manly resistance to monarchical tyranny, their sufferings so patiently endured for "conscience' sake," their intense love for dear old England, their removal to Holland, their return to England, their voyage to America, and their piety, deep and sincere, though perhaps blended with fanaticism, and rendered somewhat repellent by their morbid broodings over God's wrath against sin. If this is well done, the scholars cannot but be influenced for good by mingling amongst them, partaking of their joys, sharing their sorrows, hearing them talk, seeing them nobly suffer, and listening to their triumph as they yield up a life which they "counted not dear unto them." After this, it is easy to show how their previous sufferings and their ardent love of liberty influenced them in founding their colony, and how the principles of the Roundheads, thus transplanted to the shores of New England, were ever

antagonistic to those of the Virginia cavaliers, and that this antagonism has contributed greatly to make the North and the South.

I anticipate an objection that this will consume too much time. But is it not better that our scholars should know *well* part of the history of our country, than that they should have a superficial knowledge of it all? One school history occupies over one hundred pages with the settlement of the country. Others are little better. The plan here suggested, well worked out by any method, would require less time than it would to master those one hundred pages. Scholars have little difficulty in committing thoroughly to memory the facts and dates that form the centers round which others cluster. Thoroughness here cannot be too strongly insisted on. If that is secured, the interest which has been imparted to the salient points will fix minor matters in the memory. Moreover, much will have been learned that cannot be estimated by percentages. The scholars have been associated with the great and the good of the past, and have by that association, been developed intellectually and morally, in proportion to the skill with which they have been taught. That development, intangible as it is to the examiner, is, after all, the teacher's greatest achievement. Reference has been made to the necessity of frequent written examinations. The papers should be carefully preserved by the teacher until the subject is being reviewed, when each scholar should receive his own paper. This, with the text-book, would both shorten and lighten the work of review. A good library would be of the greatest assistance. It should contain, not simply works on history, but fiction and poetry as well. Cooper's novels will give a far better knowledge of the Indians and their customs, and of the dangers and hardships of frontier life, than can be obtained from Bancroft's "Native Races." Barnes' History of the United States, adopted in so many counties, gives an admirable selection of books of reference, which it would be well to have in every school library. It will be found, too, that Longfellow's "Courtship of Miles Standish," and his "Building of the Ship," Holmes's "Grandmother's Story," and Drake's "American Flag," read to the class at the right moment will be more effective than any number of pages of the school history committed to memory.

Much is necessarily left unsaid. My object, as already stated, has been to suggest, not to prescribe. If any one objects that it would require a master mind to portray the history of our fathers so that they will live again, the answer is, that we should always set the highest standard before us, if we wish to achieve success; for "he that aimeth at a star will shoot higher than he that aimeth at a bramble." Whoever can tell a story to a child, can talk history to a class. Every one can cultivate this talent, and an imperfect effort in this method will bear better fruit than the most thorough book-teaching. After all, in this, as in all other branches, the *first* condition of success is knowledge of the subject.

One thought more and I have done. So dry are the text-books of history, that very intelligent persons have frequently remarked to me, that this country has no history; that the compilers of school histories *must* load their pages with insignificant facts from lack of other and worthier matter. Let us con-

vince our scholars, by our manner of teaching, that it *has* a history both interesting and instructive. What country has a grander one? What other country, Minerva-like, leaped at a bound to a front rank among the nations of the world? Nowhere, not even in Greece, with her Marathon and her Thermopylæ, can we find more thrilling incidents, more heroism, more exalted patriotism, or more glorious achievements.

W. W. ANDERSON.

High School, Berkeley, California.

MENTAL MULTIPLICATION TABLE FROM 10×10 TO 20×20 .

RULES.

1st. Multiply the units for a new unit, and carry tens, if any.

2nd. Add the units and the carried tens for a new ten, and carry hundreds.

3rd. Add 1 to the carried hundreds.

$$\text{Example.---} 13 \times 13 = \begin{cases} 3 \times 3 = 9 & 9 \\ 3 + 3 = 6 & 6 \\ \text{Add 1} & 1 .. \\ \hline 169 \end{cases}$$

$$\text{2nd. do. } 17 \times 16 = \begin{cases} 6 \times 7 = 42 & 2 \\ 6 + 7 + 4 = 17 & 7 \\ \text{Add 1 to 1} = & 2 .. \\ \hline 272 \end{cases}$$

$$\text{3rd do } 19 \times 19 = \begin{cases} 9 \times 9 = 81 & 1 \\ 9 + 9 + 8 = 26 & 6 \\ 2 + 1 = 3 & 3 .. \\ \hline 361 \end{cases}$$

In these examples, I have canceled quantities not carried.

A little practice fixes the rules in the mind, and the combinations will be as familiar as those up to 12×12 .

J. C. GOULDIN.

CHILDREN are least tainted with the earthly sod—

They are the freshest from the hand of God.

THE only amaranthine flower on earth is virtue; the only lasting treasure, truth.—*Cowper.*

TRUE bravery is shown by performing without witness what one might be capable of doing before all the world.—*Rochefoucauld.*

THE true aim of the highest education is to give character, rather than knowledge; to train men to *be*, rather than to know.—*Mark Hopkins.*

THE C. L. S. C.

This department is under the editorial charge of Mrs. M. H. FIELD, San José, to whom all communications relating thereto must be addressed.

THE C. L. S. C. has made rather a poor showing thus far in the JOURNAL; but it is not extinct. On the contrary, it has a stronger position and claim on popular favor than ever. It has so enlarged its borders that the parent society has decided that it shall be no longer known as the California Branch, but the Pacific Coast Branch. So, good people all, give us cordial greeting under our new cognomen, and consider us as a growing and permanent institution.

The various circles have settled down to steady winter work, and have just completed the first text-book of the year, "A Short History of Art," by Miss DeForest. The only regret expressed by the readers is, that so brief a time is allowed for so delightful and inexhaustible a field of study. Still, it is better to get even a glimpse into the works of great masters and a little knowledge of their lives, with the periods of art history, than to be in total ignorance. There are delightful books in every public library, and almost in every private one, which throw great light on the necessarily brief sketches of the text-book. Indeed, the design of the whole course is simply to make a beginning in each line of work. Our students have found great pleasure in Mrs. Jameson's and Mrs. Clement's well-known books, in Hare's "Days near Rome," in the wonderful descriptions of Hawthorne's "Marble Faun," and in Ebers' beautiful Egyptian story, "Uarda."

The Ebell Society of Oakland has kindly loaned to the San Jose Circle their extensive collection of photographs of works of art, together with "Prang's Illustrated History of Art," thus greatly assisting a sister society, and practically illustrating the old symbol of one hand passing on to another a lighted torch. The Art Department in the Ebell Society has spent years on what the C. L. S. C. can only spend months, and we congratulate them on their privileges and attainments.

There are two flourishing circles in San Jose, both doing good work. The general meeting is held once a month, and is always interesting. The last one was particularly so, as a delightful essay on art was furnished by Mr. Elliot Read, himself an artist of not a little skill and knowledge. The essay was followed by an exhibition of stereopticon views of Egyptian scenes, including the great Pyramid, the Sphynx, the ruins of ancient temples, obelisks, and scenes on the Nile. Prof. H. B. Norton took the role of showman, and with his accustomed versatility proved himself worthy of a place at the head of that profession. It was a most delightful and instructive object lesson on Egyptian art.

The secretary's books show a constantly increasing membership, while letters from individuals and circles in remote corners of the whole Pacific Coast region, testify how a "a little leaven" hidden away three years ago is

silently permeating this great western world with its beautiful vivifying influence.

C. L. S. C. Reading for January and February is as follows: For January, the first half of "Quackenbos's History of Ancient Literature" and the *Chautauquan* for January; for February, the second half of the "History of Ancient Literature" and the *Chautauquan* for February.

The price of the History of Literature is \$1.00. The *Chautauquan* is \$1.50 per year, and is published by Rev. T. L. Flood, Meadville, Penn.

EDITORIAL DEPARTMENT.

NEARING THE CRISIS.

THE attack on the American public school system is at last assuming practical form. Its friends—who have been deluding themselves with the idea that a safety-valve for ignorance, misconception, and positive ill-will has been furnished in hastily written newspaper articles, or more elaborate, if equally illogical, papers in the monthly periodicals, or by occasional addresses from *quid nuncs*, who speak *ex cathedra* on the subject, because they have never spent a day in a public school in their lives—will soon awake to the fact that the arrow of Paris has found the vulnerable spot in the heel of our Achilles.

This vital point is the money appropriation. Already, in some of our largest cities, the enemy have succeeded in reducing the annual supply; and still the cry swells—"The schools cost too much! They fail to give a fair return for the money expended." Governors of States, scientific leaders, as well as codfish aristocrats and ultramontanes, echo and re-echo the refrain. We are willing to concede to all these unlike elements conscientiousness of belief in their cry. But upon this belief they have begun to act, with results already apparent in diminished revenue for education.

On this point, both teachers and laymen may meet on a common plane. Let us admit, at the outset, that the public schools are not perfect; that they are not doing work of the best quality; that the boys and girls they are daily "graduating" from their portals will not make ideal citizens; that, in a word, there is room for great improvement in teachers, in methods of teaching, in the subjects to be taught.

But it can be shown that these shortcomings, these "failures" more or less complete, are the inevitable results of that spirit of false economy—niggardliness would be no unfit term—which the enemies of the whole idea of universal education now seek to intensify with such fair prospect of success.

A penny cannot well purchase a pound; and our whole body of educators, for fear of losing the little so gingerly dealt out to them, have never dared to demand the much to which they are justly entitled.

It is said that all true progress is imperceptible; that reforms never come by revolution. This is true only in part. The enunciation of truth is often sudden; like the sun on the poles at the equinox, they see it to-day where yesterday it was not. The doctrines of Christianity, of Protestantism, came complete from the

hands of their founders, though it has taken centuries for the world to realize their beauty and their worth.

So it rests with those who have in charge the conservation and improvement of the American system of popular education to take their stand on logical ground, and enunciate the only legitimate basis on which this system can produce any adequate results. This basis we believe embodied in the following proposition:

The schools are now comparative failures because the money supply is a comparative failure. Remedy—Increase the appropriations—more of the sinews of war.

None but *teachers* should be employed in the schools, and no salary should be less than fifteen hundred dollars a year.

The opponents of the system would object that this alone must enormously increase the expense of education. So it would. Herein has always lain the difficulty—an annual *per capita* expenditure of \$25 has been regarded as excessive, when the fact is, that, like a drop in the ocean, it has been entirely insufficient and its influence imperceptible.

These statements are made confidently, because there are facts at hand to support them. The principal of one of the most successful private schools in the State informs us that it costs from \$100 in the primary department to \$130 in the academic department to each pupil under his tuition. The records of the best private schools of a generation ago, as well as those of our own day, invariably show a minimum cost of \$160 per year for tuition alone.

If the State educates, it must educate intelligently. If it goes into the market to purchase a good English education, it cannot expect to buy at half-price. It must pay the full market value. Those who offer to sell at "greatly reduced rates" are charlatans and quacks; their wares are worm-eaten, and will disgust the buyer.

Nor is this full value still a matter of speculation or argument. Conceded that the State should conduct its affairs on the same principles and in the same manner as the judicious citizen manages his own business, we have the experience of centuries of school managers, from Plato in the Academia to the schools preparatory to our own University.

Supporters of our educational system can say to its opponents, "The cost of true education is so much: pay the price, or abolish the system." Which horn of the dilemma will the ultramontanes take? Which the plutocrat?

These views may sound extreme to those timid brethren who fear to lose the rind because they ask for the fruit.

But we predict that twenty years hence they will be recognized by all intelligent persons. Then education will cost more, not less; fewer teachers will be born, more trained; teaching will be a money-making business as well as law, or medicine, or theology; finally, the common honesty of paying a just price for an article purchased by the State, will secure more conscientiousness among teachers in the supply of that article.

ONE EVIL NEWSPAPERS DO.

WE think the newspapers of this country are making a terrible mistake in the publicity they give to crime, and the minuteness with which even the most revolting details are daily served up for the supposed delectation of their readers.

The excuse that the public read these things, therefore they want them, is shallow and untrue. They read these because there is nothing else for them to read. People sufficiently intelligent to require the newspaper as a part of their daily life, are refined and optimistic enough to prefer less of the blacker side of humanity, less crime and violence, less vice and debauchery—less to show our nearness to brutes, and more to show our kinship to angels.

A marked example of this predilection to gloat over the monstrous in mankind is the fullness with which every trivial incident of the trial of President Garfield's assassin is telegraphed over the land and published in the daily press. The half-idiotic, half-raving, utterances of the monstrosity are printed so fully, that we question whether the author of these ravings can possibly be more abnormal than their publishers.

Mainly by reason of this unhealthy system, the assassin has satisfied at least one of his objects in murdering the President, i. e., his inordinate desire for notoriety.

Had a sensible and virtuous course been followed, not even his name would be handed down to future generations. A nameless recreant would be execrated, whom Fate had justly consigned to earth, "unwept, uncoffined, and unknown."

THE PRIMARY TEACHER.

THOSE not teachers can form no just conception of the difference between teaching in a primary school and in more advanced classes. Contrary to the prevalent idea, the former is work of an infinitely higher order. It requires more tact, more patience, more adaptability. It demands a higher moral culture; for without the most exalted sense of duty, here, at least, there can be no real success. *It is harder work, too;* for in the primary class there are no breathing places, no moment when all the little ones "may be set to work," so that the teacher can rest. Here every nerve of the teacher is always at full tension, every sense on the alert, every faculty employed.

We hope the day is not far distant when the arduous nature of the primary teacher's work, as well as its overshadowing importance, will be recognized and adequately valued.

It is in the comparatively low estimate placed on primary work that the public school is weakest. Here is the foundation-stone of the whole system. Let us insist upon it that this shall be broad and strong.

TO SUPERINTENDENTS.

SUPERINTENDENTS are respectfully requested to give us timely notice of the lapsing of districts.

The JOURNAL is sent, as required by law, to the clerks whose names are furnished us by the superintendents. If any changes are made, either by death or resignation of the clerks, or by the lapsing of districts, we hope immediate notice will be given us. This will save us trouble and expense, and often complaint from the district that the JOURNAL does not come regularly to hand.

TO DISTRICT CLERKS AND TRUSTEES.

TRUSTEES will please take notice that it is the intent of the School Law (sec. 1512), and the wish of the State Board of Education, that the JOURNAL, *after being read by the clerk of the board*, to whom it is addressed, shall be placed in the school library for the use of the teacher and pupils of the school.

We trust that teachers who read this note will see that the JOURNAL is regularly placed on the library shelves. At the end of the year the twelve numbers should be bound and the volume placed on the catalogue of library books. In this way, the library for less than \$2 is enriched by a book of 520 pages, filled with original and selected articles on education and cognate subjects, and presenting a clear record of educational progress in the world.

The JOURNAL is issued on the first day of each month. It should be in every district library by the 10th.

Let the district clerk or the teacher notify us of its non-receipt, and we shall ascertain the cause of its detention and secure its delivery. In case of the resignation or death of the district clerk, let the teacher notify us to whom to send, and there need be no copies missent or lost.

We know of one instance, at least, where on the death of the district clerk neither county superintendent, nor teacher, nor new clerk informed us of the necessity for a change. Then, strange to relate, there came a complaint that the JOURNAL "never comes to hand."

SCIENCE RECORD.

THIS RECORD is under the editorial charge of Prof. J. B. McCHESEY, to whom all communications in reference thereto must be addressed.

THE deepest well in the world is at Buda Pesth, Hungary. It has a depth of 3,200 feet, over three-fifths of a mile.

ONE hundred and two employees of the Old Colony Railroad, in Massachusetts, were lately examined as to color-blindness, in compliance with the new Massachusetts law, and forty-seven engineers, firemen, conductors, and others, were dismissed as having defective sight.

ONE million dollars' worth of sumac leaves are annually imported into this country from Italy. They contain tannic acid, which is useful in tanning or dyeing. It has been discovered that the leaves of the common American sumac are superior to the Italian product, and its extensive cultivation here will probably follow this discovery.

THE YOUNGEST SCIENTIST.—Probably the youngest man in the world who has attained scientific celebrity is Frank Hatton, the son of Joseph Hatton, an English novelist and journalist. Frank, although but twenty years of age, is the leading British authority upon the action of gases on bacteria, and has carried off the Frankland prize for the best original investigation involving gas analysis. This talented youngster has been sent out to North Borneo and the Malay Archipelago on a scientific and mineral exploration, this probably being the first instance on record where so important an enterprise was intrusted to a stripling.

TESTING WATER FOR IRON.—To ascertain if water contains iron, take a glass of water and add to it a few drops of the infusion of nutgalls, or suspend a nutgall in it by means of a thread, for 24 hours. If iron be present, the water will become of a dark brown or black color. Prussiate of potash is a still more delicate test for detecting iron. If a crystal, or a drop of it when dissolved, be added to a glass of water containing iron, it will immediately become of a blue color.

BANDS of music are forbidden to play on most of the large bridges of the world. A constant succession of sound-waves, especially such as come from the playing of a band, will excite the wires to vibration. At first, the vibrations are very slight, but they will increase as the sound-waves continue to come. The principal reason why bands are not allowed to play when crossing certain bridges—the suspension bridge at Niagara Falls, for instance—is, that persons following the bands, as a general thing, will keep step with the music, and this regular step causes the wires to vibrate. On suspension bridges, military companies are not allowed to march across in regular step, but they are compelled to break ranks.

PROFESSOR CYRUS THOMAS has made a study of the Mexican manuscript called the “Manuscript Troano,” which was discovered by the Abbé Brasseur de Bourbourg in 1865, and has concluded that it is a genuine Maya document; that it is a religious calendar of some kind, in which the day characters are used for the purpose of designating the days, and not for the signification of the words; and that it confirms the substantial correctness of Landa’s characters for the day. He has begun to decipher the hieroglyphics of the text.

M. LENZ, in a communication made recently to the French Geographical Society, on his journey to Timbuctoo, says, that in the Inguidi, a region of sand-dunes, he observed the equally rare and interesting phenomenon of resounding or musical sand. “All at once,” he said, “there was heard in the desert, issuing from a dune of sand, a prolonged, muffled sound, quite like the sound of a trumpet. It continued for some seconds, then ceased, to be resumed in another direction. The phenomenon made the traveler anxious. I supposed it was occasioned by the friction upon each other of the burning grains of quartz, which are simply placed one by the other, and are continually in motion.”

MANY birds, according to Mr. E. E. Fish, appear to possess powers of ventriloquism. A cuckoo, not a rod off, can make his voice appear to come from a furlong away; the thrush, singing from a low perch, seems to be in the treetops; the vesper-sparrow and the field-sparrow, on the roadside fence, as if singing from a distant field. The robin has a similar way of throwing his voice, and the catbird can sing in a loud, voluble sound, or in a low, soft, sweet, and tender warble. The oven-bird, the smallest of the thrushes, singing from a distance, can throw its sharp, ringing notes in such a way as to cause the listener to believe that it is almost within reach.

FIFTEEN COMMANDMENTS FOR THE TAXIDERMIST. APPLYING TO MAMMALS.—

1. Clean every skin thoroughly, and pare it down thin.
2. Clean thoroughly the leg bones and skull.
3. Sew up all holes, from the inside, neatly and strongly.
4. Choose leg wires or irons which are fully strong enough.
5. Anoint the inside of the skin with arsenical soap.
6. Do not stuff the legs round like Indian clubs.
7. Do not stuff the body round like a sausage.
8. Do not stuff the animal full of hard lumps like a bag of nuts, but
9. Stuff smoothly.
10. Do not get the back line twisted.
11. Give the animal its hips and shoulders.
12. Do not make either body or neck too long.
13. Do not make the eyes bulge out of their sockets as they usually do in stuffed animals, but never in living ones.

14. Watch every animal carefully while it is drying, and see that all the soft parts dry in position.

15. *Don't* paint the mouth and tongue a bright crimson or blood red, for nature *never* does.

ACCOUNTS of the famous traveling stones of Australia are doubtless familiar to many readers. Similar curiosities have recently been found in Nevada, which are described as almost perfectly round, the majority of them as large as a walnut, and of an irony nature. When distributed about the floor, table, or other level surface, within two or three feet of each other, they immediately begin traveling towards a common center, and lie there huddled up in a bunch, like a lot of eggs in a nest. A single stone, removed to a distance of three and a half feet, upon being released, at once started off with wonderful and somewhat comical celerity to join its fellows ; taken away four or five feet, it remained motionless. These stones are found in a region that is comparatively level, and which is nothing but bare rock. Scattered over this barren region are little basins, from a few feet to a rod in diameter, and it is in the bottom of these that the rolling stones are found. The cause of their rolling together is doubtless to be found in the material of which they are composed, which appears to be lodestone or magnetic iron ore.

INSTITUTES.

THE STATE TEACHERS' ASSOCIATION.

THE State Teachers' Association convened its fifteenth annual session Tuesday morning, December 27th, in the main hall of the Young Men's Christian Association building, San Francisco. The meeting was called to order by the president for 1881, ex-Supt. James Denman. The secretary, A. H. McDonald, read the minutes of the previous session, after which J. S. C. Stubbs, president of the Board of Education of San Francisco, delivered an address of welcome, which was replete with telling points, and full of eloquent passages. Mr. Stubbs referred to his very recent connection with the School Department, and regretted that he could not bring forth more subjects for the consideration of the convention. "A teacher's calling," said the speaker, "is one of the highest in the land. It is a profession, not a refuge for undergraduates and broken-down scholars, nor even a halting place between the high school and matrimony." He advised the teachers to exalt their calling by elevating the standard of their teachings, and said that their reward would be a fuller appreciation of their avocation by the parents of the children and the public generally. He also thought that if the parents of the pupils would visit the schools occasionally, and take some interest in what the teachers are doing, the result would be mutually beneficial. "Some parents, however," continued the speaker, "send their children to school much in the same way that they send to the corner grocery for a jug of sirup. All they care about is to see that the jug is full, and so long as the child is crammed at school, they are satisfied." In conclusion, Mr. Stubbs spoke of his position, and the important duties attached to it, and closed by saying: "May God help me do my word faithfully and well." A recess was then taken until two o'clock, to allow the members an opportunity to sign the roll and pay dues.

On reconvening, vice-president C. H. Ham introduced Hon. James Denman, who delivered the president's annual address, on "Graded Schools and their Defects," of which our space will permit only a very brief synopsis:

In opening, he took occasion to recall and eulogize several of those who had

been the pioneers of education on the Pacific Coast, among others John Swett, Starr King and others. In regard to graded schools, the speaker said that a system of perfection had not yet been reached. What was desired was how to subject the teachers to an intelligent supervision, and not view them as simple operatives. He condemned the existing system. The teacher, he said, was too apt to be regarded as a mere machine, expected to follow blindly the course prescribed by the superintendent. This would be well if the subject-matter and method were properly inquired into; but it was not. The system that existed was subversive of the best interests of education. The teachers should be permitted more freedom in their methods of teaching. Some teachers by one method could attain much better results with their pupils than they could or would by another method. Uniformity should only be insisted on in the fundamental principles on which the system in its details was based. The graded school system, as now established in the cities and larger towns of the State, was so imbedded that no change can be effected in it except by an intelligent and flexible supervision. Patriotism to the country and a better knowledge of the National and State Governments should be taught. Good citizens were the consequence of a good and right system of education. The contrary result would be the consequence of an imperfect system. The present graded system was such that nearly all the thinking and all the work devolved upon the teachers, and but little on the pupils. Such a system was subversive of the intention education had in view.

The address was frequently applauded, and created a marked impression. The association then adjourned until two P. M.

After recess, Pres. Denman announced the following committees: On Resolutions—J. M. Guinn of Los Angeles, D. C. Stone, William White, Selden Sturges of San Francisco, and S. M. Augustine of Marin; on Nominations of Officers for 1882—W. J. Dakin of Ventura, Supt. J. C. Gilson of Alameda, Hon. F. M. Campbell of Sacramento, ex-Supt. John Swett of San Francisco, and Prof. Ira P. More of San Jose. Miss Lulu P. Moore was appointed Assistant Secretary.

Supt. Gilson of Alameda gave notice that during the session he would move to amend sec. 2 of the Constitution, so as to permit of the admission of teachers of private schools as members of the association. The next feature of the programme was a discussion of the Uses and Abuses of the Credit System. The discussion was opened by a paper favorable to the system, but clearly and forcibly showing its abuses, by Selden Sturges of San Francisco. This paper will be published in an early number of the JOURNAL. At the conclusion of Mr. Sturges' remarks the meeting was treated to some vocal music by a quartet of volunteers, after which the discussion was resumed by Ebenezer Knowlton, who believed in trusting the children; but also believed in watching them just about as much as he did in trusting them. "I dearly love children, but they will fool you," said Mr. Knowlton, "and while doing it, laugh in their sleeves. Trust them just as long as you find them trustworthy, but no longer." He thought the examinations for credits under the present system would do if the teacher would locate herself in such a position on examination days as to overlook all the scholars, and not permit them to turn around or look sideways. Miss Kate Kennedy followed, and gave her reasons for being opposed to the credit system, one of which was, that it tended to reduce teachers to the level of machines. She strongly dissented from the previous speaker, and said, "Teach a boy you suspect him, and you make him dishonest." She claimed that the credit system is pernicious alike to pupil and teacher. Prof. Ira P. More of San Jose denounced the credit system in strong terms, and said that as for self-reporting (as referred to by some previous speakers), he considered the school where self-reporting was done a nursery for lying, and that if he had a son in such a school, he would take him out and send him to some respectable place. The credit system, continued the speaker, should not be used where it could be avoided. The practice of watching pupils he approved of, because, said the speaker, the honest pupil will no more object to being watched than the honest citizen takes umbrage because a policeman is stationed on the corner. Supt. C. J. Smyth of Sonoma said he did not know what side he was on; but he was in favor of the system that prevailed in the Girls' High School of

this city. A number of others took part in the discussion until the hour for adjournment arrived, when the association adjourned to meet at 9:30 A. M. the next day.

WEDNESDAY.

At 9:30 A. M. Pres. Denman called the association to order. The minutes of the previous session were read and approved; and it was found that there were nearly two hundred teachers present, representing thirty-three counties of the State.

Rev. A. L. Cole, D.D., of Dixon, was introduced, and read a lengthy address on the Battle of Letters, which was earnestly and respectfully listened to, though a large majority of the teachers differed widely from the speaker's views. The main idea in the address was the necessity of "religious education" in the public schools. After a lengthy introduction, the speaker proceeded to make the application that the inhabitants of the United States, being a Christian people, should, through their system of education, see that the agency which controlled their minds should continue to control the minds of their children. The educational laws should be the reflection of the thoughts of the people on the subject of education. He pointed out the impossibility of contradiction existing between the two under a free form of government. He said, "A State can enforce assent, but cannot enforce consent, because it could not coerce a man's religious convictions contrary to the man's will." He quoted from an article in the *Princeton Review*, in which the opinions of several prominent men on the subject were given. "Gen. Grant says, 'Secular education is not only possible, but sufficient.' Gen. Grant, in such matters, might be characterized," he said, "as a half-breed, and not as a stalwart. Contrast what Gen. Grant says with Abraham Lincoln's proclamation to the army respecting the Sabbath day. Gov. Rice of Massachusetts said it was impossible to create the best humanity from pure brain-culture. And what did Dr. Griffin say? 'Educate a bad man without correcting his morals, and you are putting a sword into the hand of a maniac.'" The speaker quoted from other authorities to show the necessity of clear, strong, and settled convictions in regard to what constituted the best foundation for the best and most desirable system of education. Continuing, he said, "After long examination, I have come to the conclusion that a system of secular education is not possible except in Mathematics and Logic. Materialism cannot teach the obligation of an oath. An oath implies a previous obligation to a being superior to him who takes the oath. Atheism denies the existence of such a being. Consequently no oath can be binding, and man ceases to be a responsible being. Secular education is destitute of morality, and consequently destitute of religion." He defined education as being necessarily one of two things, religious or anti-religious. "In this country," he continued, "it must be the same: Christian or anti-Christian. Our liberty depends on its not being the latter. Rome and Materialism have combined to say that it shall, and if they succeed, liberty for us will cease to exist. The contest is not one against flesh and blood; it is one, on our side, 'against principalities and powers.'"

State Supt. F. M. Campbell then addressed the convention upon Education as the True Liberty; holding that children are born helpless slaves, whom nothing but education can bring up to the true birthright of liberty. "There is but one free man on the planet," concluded the speaker, "and that is the intelligent and self-controlled man, made so by the province of education, which is the right of every child, even of the lowest and most ignorant people, to have."

At the conclusion of Mr. Campbell's remarks, which were listened to with great attention and frequently applauded, a recess was taken until two o'clock, when Jesse Wood, county school superintendent of Butte County, addressed the meeting on the subject of County Superintendents, alluding to the duties of the office under the old Constitution as easy work and good pay, while the office under the new Constitution, especially if the superintendent does his duty, is a veritable workshop. The duties of a county superintendent were detailed at length by Mr. Wood, who said that it was an office to be desired by every able-minded teacher, and that those who hold it should be brave, intellectual,

and able. After the applause which followed Mr. Wood's remarks had subsided, a volunteer quartet of male voices rendered *My Last Cigar*, and being encored, prepared to sing *Good Night, Ladies*, which one of the quartet, Prof. Knowlton, informed the convention was not sung because it was appropriate, but because they had rehearsed it oftener. "We're nothing if we're not honest," said the professor.

A Voice—You need watching, though.

Loud and prolonged laughter greeted this remark.

Pres. W. T. Reid of the State University then read an address upon the Current Falacies in Education. During his remarks, Mr. Reid said that to him one of the most objectionable dogmas of educational matters was that a pupil shall not follow the language of text-books; that of late many superintendents have discovered that, although pupils are able to give them accurate answers on various matters, the pupils are totally ignorant of the subjects which they have been studying; in other words, that the children learn too much by rote, and the learning under these circumstances is useless. The teachers are not to be blamed, as they have to work in a set line and beaten track, and no good could come of such a system. Mr. Reid disbelieved in forbidding the pupil to use the language of the text-books, and also disbelieved in bidding them use it; but thought the best way would not be to have the pupil use his own language in giving definitions. He did not want to be understood as condemning the text-books in use to-day, because he thought them admirable, but not exhaustive. The best teachers are those not dependent on books, and at the same time the books are indispensable to good teachers. It is in the hands of the poor teachers that the text-book becomes objectionable. In reference to the system of marks, or credit system, the speaker said that it was designed to spur the pupils to work. It has been objected to on the ground that it caused the pupils to overwork themselves; but he had never seen a case of overwork. "To talk of the longing of the average schoolboy for knowledge," said Mr. Reid, "is sentiment, and a boy with such a longing I have never met, and never expect to." There are many things which should be taught empirically, without the pupils' consent, and even without their knowledge. Mr. Reid closed his remarks by saying that the teacher, like the poet, is born, not made.

Prof. White of the Boys' High School explained the workings of the credit system in that institution, and the manner in which the records are kept; and also stated that they had no trouble with it. The credit system, he thought, was necessary, because the average boy is looking for a reward for his labors, and he never saw a boy yet whose conscience was sufficient to reward him, and the hope to get a high percentage was sufficient inducement to work.

Prof. J. M. Guinn here introduced the following resolution, which was unanimously adopted:

Resolved, That this association views with disfavor any attempt to disturb the strict neutrality of the public school system upon questions of religious faith.

The association then adjourned until Thursday morning.

LAST DAY.

Session met at 10 A. M., and called to order by Pres. Denman, the hall being filled. Minutes of previous meeting read and approved. Roll called, and fifty-four more names found enrolled.

State Supt. Campbell read some statistics, which showed that nearly every county in the State was represented at the meeting, also Nevada and Washington Territory. Mr. Campbell also read statistics which appeared in January JOURNAL. Prof. J. M. Guinn, city superintendent of Los Angeles, then delivered an address on Mechanical Pedagogy, which elicited warm applause. This address will appear in the JOURNAL.

After recess, J. E. Clark, secretary of Washington Territory Teachers' Institute, being called on, gave a description of the rise and progress of education in that Territory.

Intermission to 2 P. M.

Upon reassembling, Dr. J. H. Wythe delivered an address on Symmetrical Education,

which was frequently applauded. Pres. Denman then read a telegram from Gen. John Eaton, Commissioner of Education, regretting his inability to attend the convention.

Prof. Charles H. Allen of the State Normal School, San Jose, delivered a well-prepared address on the Necessity of Trained Teachers. It elicited profound attention from the large audience present. This address will appear in an early issue of the JOURNAL.

Mr. Buckbee, on behalf of the Silk Culture Association, addressed the meeting on the great benefit that would accrue to the State if women and children were induced to take interest in the silk culture, and stated that any information would be given to those who would address Mrs. Hittell, 808 Turk St., San Francisco.

Mrs. A. Griffith, treasurer of the association, submitted her report, which was approved.

Committee on Nominations reported as follows: For President, J. B. McChesney, of Oakland; Vice-Presidents, Jos. O'Connor of San Francisco, J. M. Guinn of Los Angeles, and Jesse Wood of Butte County; Secretary, Wm. White of San Francisco; Treasurer, Miss Vesta Bradbury of San Francisco; Executive Committee, C. M. Walker of Napa County, George Kleeberger of Marysville, Ira More of San Jose, S. M. Augustine of Marin County, J. P. Garlick of Oakland, C. S. Smyth of Sonoma County, and F. M. Campbell of Sacramento.

Time Wednesday, Thursday, Friday—December 27th, 28th, and 29th, 1882.

Place, San Francisco.

(Signed)

W. J. DAKIN,
F. M. CAMPBELL,
J. C. GILSON,
IRA MORE,
JOHN SWETT,

Committee.

Adopted unanimously.

J. M. Guinn, chairman of the Committee on Resolutions, submitted a series of resolutions which, with the exception of the fourth, prohibiting any persons but regular teachers from delivering addresses before the association, were adopted:

WHEREAS, It is constantly asserted in the public press and in the discussions of educational assemblies, that our common school system of instruction is inefficient and impracticable by reason of its including many useless topics and omitting many that are useful; and,

WHEREAS, The public have a right to expect from such a body as this clear, definite, and practical suggestions for educational improvement which may be embodied in legislation; therefore,

Resolved, That the Executive Committee be requested to announce for discussion by this association at its next meeting the following questions: 1st. Does our common school course of instruction include any topics which ought to be omitted, and exclude any which ought to be included? 2nd. If so, what topics ought to be omitted, and what topics ought to be substituted therefor? (All teachers not having the gift of public talking should present written opinions of not more than fifty words each.)

Resolved, That it is the sense of this association that no paper submitted at the next session should occupy in its delivery more than thirty minutes.

Resolved, That a prescribed and limited time be allotted by the Executive Committee for each exercise of the programme, and that the order of business be not changed except by a two-thirds vote of the association.

Resolved, That the Executive Committee be requested to make a public announcement of the subjects for discussion, for the next session of this association, four weeks previous to the time of meeting, in order that all members desirous of participating in such discussion may have ample time to prepare themselves for that purpose.

Resolved, That the thanks of this association are due, and are hereby tendered, to the Central Pacific R. R. Co., and to Messrs. Goodall, Perkins & Co., for their courtesy in reducing fares over their respective lines of travel, in behalf of teachers in attendance at the present session of this association.

Resolved, That it is a subject for warm congratulation on the part of all those interested in the work of public instruction in this State, that the board of trustees so promptly and unanimously declined to accept the resignation of Prof. Charles H. Allen as principal of the State Normal School, and that they so firmly sustained the faculty in maintaining the

discipline and morals of the Normal School on a plane that shall meet the just and reasonable expectations and demands of the people of California concerning their institutions.

Resolved, That we recommend to County Institutes that they appoint a special delegation of from one to three teachers to specially represent their county in the next meeting of the State Teachers' Association.

On motion, the thanks of the meeting were tendered to President Denman, Secretary McDonald, and Assistant Secretary Miss Lulu L. Moore for the prompt performance of their duties. Also to the press of the city for the reports published of the proceedings.

The retiring president then tendered his thanks to all who had helped to make the meeting so interesting, and declared the meeting adjourned *sine die*.

OFFICIAL DEPARTMENT.

SUPERINTENDENT FREDERICK M. CAMPBELL, EDITOR.

SALARIES AND TRAVELING EXPENSES OF COUNTY SUPERINTENDENTS.—In several counties the salary of the superintendents of schools is fixed by special statute at a certain sum per annum, "in full for all services rendered." In some of these counties the superintendent has been compelled to pay the necessary traveling expenses incurred in visiting each school in the county, at least once each year, as provided by law, the supervisors holding that the words above quoted prohibited them from allowing such traveling expenses; "visiting schools" being a part of the "services" required to be rendered by the superintendent.

In view of the manifest injustice of compelling an officer to expend the salary allowed him for his *services* in the necessary *expenses* involved in performing them, the supervisors of all counties operating under this special salary bill, so far as I have been informed, would be not only willing, but glad to afford relief to their county superintendents, if they could see their way clear to do so legally. It is confidently hoped and believed that the following opinion of the Attorney-General will remove any doubt that may be pending as to the power of supervisors in such cases.

In addition to what the Attorney-General says below, attention is called to the fact that the Constitution (art. v. sec. 19) fixes the salary of certain State officers at \$3,000 per annum, "such compensation to be in full for all services by them respectively rendered in any official capacity or employment whatsoever during their respective terms of office," and that, notwithstanding this, the Legislature at each session makes appropriations for the incidental expenses of the various officers, *including necessary traveling expenses*. Now, it certainly cannot be that the Legislature should intend a construction to be given to language which they use in a general or special act, different from that which they themselves give to the same language used in the organic law or Constitution.

DEAR SIR—I have had under consideration your inquiry relative to the claim made by the county superintendent of San Diego County for repayment of such sums as he necessarily pays out in traveling expenses, etc., while visiting the schools of his county, and now beg leave to submit to you my opinion thereon.

I find upon examination, that the salary of the superintendent of schools of San Diego County is fixed by a special act of the Legislature, found in statutes 1875, 1876, page 592, the section applicable reading as follows: "The school

superintendent shall receive an annual salary of six hundred dollars, which shall be in full for all services rendered by him, his deputies, and assistants."

It will be noticed that the salary above provided for is to be for the *services* of the superintendent. The law makes it a part of his official duty to visit every year the schools within his county, and such official duty cannot be performed without, of necessity, some expense being incurred; and I am at loss to understand how the superintendent will receive six hundred dollars for his *services* if he is compelled to pay out that sum, or a large part of it, in the necessary expenses of his office. In my opinion, the necessary expenses incurred by the superintendent in visiting the schools is as much a proper charge against the county as are stationery, lights, fuel, etc., for his office. In fact, as I view it, the board of supervisors of the county could with as much consistency refuse to furnish the superintendent an office room as to refuse to allow him his necessary expenses incurred in visiting the schools of the county.

I have the honor to remain,

Yours respectfully,

A. L. HART, Attorney-General.

RELOCATING SCHOOL-HOUSE.—In answer to a correspondent who writes concerning this and other matters, attention is called to sec. 1617, subd. 20. (1) Meetings for the purposes named therein can be called in no other way than by the board of trustees. (2) If the present site was donated upon the conditions named, the title would revert to the grantor in case of its abandonment as a school site. (3) The trustees are unquestionably right when they "claim that State and county money is apportioned solely for the benefit of the school children of the district, and not for any other public convenience." It will be well when all boards and everybody shall fully recognize that fact, and govern themselves accordingly. Also the further fact, that boards of trustees, superintendents, and teachers are but *means*, and are of no possible consequence nor value in the scheme of public education only so far and so long as they shall serve the *end* for which they were called into official existence; viz., the proper training, culture, and development of the children of the State into full manhood and womanhood, for the future safety, welfare, and progress of the State. The schools of the State are for the *children* of the State; not for *teachers, trustees, boards of education, or superintendents*; and in deciding upon the question of expending a dollar, or upon any other official act, the one and only consideration that should govern or have weight must be whether or not it is in the best interests of the *children*.

STATE BOARD OF EDUCATION.

A meeting of the State Board of Education was held at the office of the Superintendent of Public Instruction, Sacramento, on Friday, January 27th, 1882. Present, Governor Perkins, Superintendent Campbell, and Prof. Allen, being a full board.

The minutes of the last meeting were read and approved.

A communication was received from Mrs. A. A. Sargent, Mrs. Theodore H. Hittell, and others, a committee on behalf of the California Silk Culture Association, asking the board to "recommend the teachers and pupils of the public schools to pay special attention to this very important branch of industry." The

Board took favorable action upon the communication, instructing the Superintendent to call attention to the subject through the official department of the SCHOOL JOURNAL.

A resolution adopted by the Alameda County Board of Education, asking the State Board to seek power from the next Legislature to issue second-grade life diplomas upon second-grade city, State, and county certificates, was laid over for consideration at the next meeting of the Board.

On motion, the records of the Board were ordered amended, so as to show that a life diploma had been issued to O. F. Seavey, December 4th, 1879.

Several applications for diplomas were ordered returned, not being accompanied by indorsements as required by law.

Life diplomas were issued to the following persons, by a unanimous vote of the Board:

Mary F. L'Hote, Alameda Co.	M. Jennie Gilman, San Francisco Co.
Joseph F. Chandler, Amador Co.	Kate M. Fuller, "
Chas. A. Woodman, Butte Co.	Mrs. Annette H. Green, "
Clara Clindinin, "	Annie Celia Herndon, "
Alfred Dixon, Contra Costa Co.	Deborah Hyman, "
Katie Mitchell, "	Mary Mathews, "
Elbert A. Seaman, "	Bessie Molloy, "
Edward M. Seaman, "	Mrs. Kate C. McLaughlin, "
Mrs. Mary A. Young, "	Katie R. O'Leary, "
Peter Costelloe, Del Norte Co.	Mrs. Celina R. Pechin, "
Mrs. Hulda N. S. Newton, "	Mary A. Roper, "
John M. Dickson, Humboldt Co.	Mary A. Tyrrell, "
John L. Maurer, "	Mrs. Laura H. Wells, "
Sabine W. Blaisdell, Inyo Co.	Arza Crabb, San Joaquin Co.
L. Jennie Torrey, Lake Co.	Kittie Crofton, "
Wm. L. Smith, Mariposa Co.	Chas. M. Keniston, "
Mary McDonald, Mendocino Co.	James L. Raines, San Luis Obispo Co.
Joseph A. Norvell, Merced Co.	Mattie E. Root, "
Clarence A. Pease, Modoc Co.	Mrs. Jennie E. Hartley, San Mateo Co.
Mrs. Nantie Adams May, Monterey Co.	John C. Nash, "
Wm. H. Bingaman, "	Etta M. Tilton, "
James A. Riley, "	Mrs. Della Clarke, Santa Clara Co. .
Daniel M. Eddy, Napa Co.	Jennie C. Gould, "
Lou Givens, "	Wm. Henry Price, Jr., Solano Co.
Francis O. Mower, "	Mrs. Fannie McG. Martin, Sonoma Co.
Fannie Doom, Nevada Co.	Dersie A. Forseman, "
Eli Carithers, Sacramento Co.	Jennie L. Gibb, "
Emily E. Ives, "	Ferdinand Kenyon, "
Maramne Bonnard, San Francisco Co.	Haney W. Scott, "
Fannie E. Baker, "	Isora Vickers, Tehama Co.
Ruth G. Campbell, "	Lillian S. Abbott, Tulare Co.
Amelia G. Catlin, "	Wm. C. McAdams, "
Mrs. Jennie D. Cooper, "	Cornelius B. Bradley, Oakland City.
Mrs. Laura M. Covington, "	Mary E. Connors, "
Mrs. Mary J. C. Crocker, "	Harriet M. Mullen, "
Irene M. Doyle, "	Harriet K. Newberry, "
Elva R. Elder, "	Harriet B. Shorkley, "
Jennie A. Forbes,	Sarah J. Farrington, Vallejo City.

By the same vote, Educational Diplomas were issued to the following-named persons :

J. S. Clark, Amador Co.	Kate M. Hassen, San Francisco Co.
Sophia C. Field Contra Costa Co.	Rosa H. Hazelton, "
Clara K. Whittenmeyer, "	Laura Heineberg, "
Addie A. Davis El Dorado Co.	Annie Celia Herndon, "
Hartwell B. Stanley, "	Abbie L. Hunt, "
Dan P. Albee, Humboldt Co.	Mamie E. Hurley, "
Jasper N. Davies, "	Pauline Langstader, San Francisco Co.
Julia L. Jones, Mariposa Co.	Mrs. Virginia C. Ingram, "
Mrs. Alice Converse, "	Susie T. Loughran, "
May Carpenter, Mendocino Co.	Mary Magner, "
Josie Callen, "	Minnie E. Miller, "
Mrs. Blanche Landis, "	Carrie L. Morton, "
Mrs. Kate Ruddock, "	Mary V. McGeough, "
Albert P. Woodward, "	Mrs. Emma W. McKenzie, "
Harry Green Hill, Modoc Co.	Mrs. Kate C. McLaughlin, "
Anna L. Luchsinger, Monterey Co.	Lucy C. McNear, "
Sadie E. Russell, Nevada Co.	Susie F. Neil, "
Wm. R. Bird, "	Richard C. O'Connor, "
Charles L. Brown, "	Maggie O'Rourke, "
A. J. Mitchell, Napa Co.	Mrs. Winona E. Pinney, "
Annie J. Neary, "	Philomene Robbins, "
Lucy E. Crawford, Oakland City.	Mabel Seavey, "
Mrs. Nellie K. French, Petaluma City.	Mary T. Shea, "
Luana Carus, Placer Co.	Flora McD. Shearer, "
Alex. M. Drew, "	Nellie F. Sullivan, "
Delia Manning, Sacramento Co.	Mary A. Tyrrell, "
Wm. R. Algro, "	Alice Weed, "
Maggie B. Little, Sacramento City.	Mary L. Wiseman, "
Mattie K. Powers, "	Kate Zwicker, "
Eliza A. Seeley, "	Lizzie B. Little, "
Mary W. Sinclair, "	Annie S. Barry, San Joaquin Co.
W. Austin Leggett, San Benito Co.	May Franklin, "
Belle Harrison, "	Kate McCarthy, San Mateo Co.
Ida L. Bernard, San Francisco Co.	Lizzie E. Brown, Santa Clara Co.
Etta M. Bodwell, "	Lizzie F. Keller, "
Mary E. Carson, "	Myrtie C. Hudson, "
Katie F. Casey, "	A. F. Parsons, San Luis Obispo Co.
Mrs. Christine Chalmers, "	Archie H. Burns, Solano Co.
Ida E. Coles, "	Edward Gibbs, Sonoma Co.
Mrs. Jennie D. Cooper, "	Mrs. Cora Bowles, "
Ella L. Cornell, "	Mrs. Eliza Tyler, "
Mrs. Laura M. Covington, "	Frederic C. Norton, "
Mamie A. Deane, "	M. Dallas Wood, "
Louise Donnelly, "	Willis S. Chase, Stanislaus Co.
Kate M. Fuller, "	Clara G. Elkins, Sutter Co.
Mrs. Minnie F. Gannon, "	Mrs. Jennie C. Cochran, Tulare Co.
Abbie A. Garland, "	Mary L. McKennon, Vallejo.
M. Jennie Gilman, "	Cornelius B. Bradley, Oakland.
Edward C. Harrison, "	

Duplicate educational diplomas were issued to Ida M. Honn, Plumas Co., and Mrs. Fannie Landes, Sacramento Co., affidavits of the loss of the originals having been filed.

A duplicate was ordered to be issued to Addie C. Shepard, when the necessary affidavit of loss of the original shall be filed.

Board adjourned.

NEWS RECORD.

Foreign and Domestic.

The trial of the assassin of the late president, which has engrossed the attention of the public for two months past, and cost nearly \$300,000, is at length drawing to a close. The widest latitude has been allowed the assassin, and his extraordinary demonstrations have caused the deepest disgust throughout the country, and a correspondingly earnest desire for the speedy conviction and execution of the criminal.

The purpose of Chili to exact a cession of territory from Peru as a war indemnity led Mr. Hulburt, our minister to Peru, to send a "memorandum" to Admiral Lynch of the Chilian army of occupation, stating that it would be "incompatible with the dignity and public faith of Chili" to take territory from Peru without allowing her the choice of making a money payment instead; and that the amount of such payment should be decided by a "disinterested arbitration." The indignant Chilians at once appealed to the late Mr. Kilpatrick, minister of Chili, for an explanation of this attitude of the United States towards them. Mr. Kilpatrick replied that Mr. Hulburt's instructions were the same as his, and that their advice was not to be given to the belligerents unmasked. He flatly contradicted Mr. Hulburt's "memorandum." To settle this dispute of our ministers, and to inform the powers interested what the position of the United States is, Mr. W. H. Trescott, a trained diplomatist, has been sent as Special Envoy Extraordinary and Minister Plenipotentiary to Peru, Chili, and Bolivia.

Before retiring from the State Department, Mr. Blaine sent a dispatch to England, in which he strongly reaffirmed the "Monroe Doctrine," and announced that the policy of the United States in regard to the isthmian canal was towards a sole protectorate. In reply Lord Granville simply pointed to the agreement between the United States and England as contained in the Clayton-Bulwer treaty. In his message to Congress the President says that he has proposed to the English Government "the abrogation of such clauses of the Clayton-Bulwer treaty as do not comport with the

obligations of the United States toward Columbia, or with the vital needs of the two friendly parties to the compact." Following this Mr. Blaine published a second dispatch to Mr. Lowell, in which he instructs him to propose the following changes in the Clayton-Bulwer treaty to the English Government: "That every part of the treaty which forbids the United States fortifying the canal and holding political control of it, in conjunction with the country through which it runs, be canceled; that every part of it which prohibits Great Britain or the United States from making acquisition of territory in Central America shall remain in full force; that the clause looking to the establishment of a free port at each end of the canal be retained, if England wishes it to be retained; that the clause providing for a joint protectorate of whatever railway or canal may be constructed at Tehuantepec or Panama shall be considered obsolete by the non-action of the common consent of the two governments."

Senator Miller of California has introduced a bill in the United States Senate, setting apart a tract of timber land in the Sierras, thirty by fifty miles, for a national park. It is said that the people of Tulare and Fresno counties are strongly opposed to the bill. We doubt the assertion. The only persons really opposed to the measure are probably wood speculators, who are now so widely engaged in denuding our hills and mountains of timber, thereby rendering many fertile tracts barren and unproductive.

Among other bills introduced in the Senate are those to retire the trade dollars and to recoin them into standard silver dollars; to punish attempts to take the life of the President of the United States; to place General Grant on the retired list of the army; to authorize the Secretary of the Interior to provide for the education of every Indian child dwelling west of the Mississippi River, except those who belong to certain civilized tribes, at an expense not exceeding \$500 for each child.

An insurrection has broken out in the semi-independent British Indian Independence, Napaul.

The Senate has received and confirmed the following nominations by the President : Ex-Senator Frelinghuysen, of New Jersey, for Secretary of State, *vice* Mr. Blaine ; T. O. Howe, of Wisconsin, for Postmaster-General, *vice* Mr. James ; H. C. Brewster, of Pennsylvania, for Attorney-General, *vice* Mr. McVeagh ; Chief Justice Horace Gray, of Massachusetts, to be an associate Justice in the United States Supreme Court.

Italy now requires only one test for suffrage; i. e., ability to read and write.

A frightful disaster occurred at Vienna in January. During a performance at the Ring Theater, a fire broke out, and a panic ensued, which resulted in the death of nearly one thousand persons.

Thirty-one warrants have been issued for the arrest of parties charged with defrauding the government in the star-route contracts. Civil suits have also been begun, and there is every evidence that Attorney-General Brewster will prosecute the criminals with all the vigor of the laws.

A very active insurrection is raging in Herzegovina, this time against the Austrians, who are in possession of that region. Several bloody skirmishes have already been fought.

A small-pox epidemic seems to be raging both East and West, with Chicago as the center of virulence. There have been some cases in California, but more in Washington Territory, and other western localities. The disease seems to follow the line of railroad travel.

Gambetta, who is now the virtual ruler of France, is engaged in a controversy with the French Chambers on the following questions : First—Is it or is it not advisable to call together a Congress for the purpose of revising the Constitution? Second—Is it advisable that the Chamber should, when it has assembled, insert in the revised Constitution a clause establishing the principle that Deputies should hereafter be elected by departmental *scrutin de liste*, or shall they vote by ticket?

At last there is news of the long-lost Jeannette. Frelinghuysen, Secretary of State, has received the following telegram from our Charge d' Affairs, St. Petersburg, respecting the fate of that ship and her crew. Dannahower and five of the crew arrived on a whale boat at the sea of Kuhsk, December 17th, and were comfortably lodged, and their wants supplied. Mellville and six men are expected soon. DeLong and the crew of the first cutter have not been found.

A dispatch dated Boulogne, November 16th, says: It is reported that the Jeannette was caught in the Park, October 1st, 1879, and drifted with the wind and currents till June, 1880, then she was abandoned.

A frightful railroad accident took place, January 13th, on the Hudson River Railroad near New York. The special express train, leaving Albany at 2:40 Friday afternoon, with many members of the Legislature on board, was run into by the Tarrytown special train about one-quarter of a mile east of the Spuyten Duyvil junction with the Harlem main line. The two rear drawing cars were telescoped and set on fire. The accident was due to the carelessness of the man in charge of the Albany train. It had no signal out, and the first intimation the engineer had of the danger was when he saw the lights of the drawing-room car about fifty feet in front of him. The horrors of the collision were increased by the two rear cars taking fire. Twelve persons were killed or fatally wounded.

The Marquis of Lorne has returned to Canada.

An extraordinary "spell" of cold weather has prevailed through the State for nearly a month past. As far south as Ventura, Los Angeles, and San Bernardino there have been snow and ice, a thing unheard of within the memory of the oldest settler.

There is an aggressive anti-Mormon sentiment in Washington, and there is at length some probability that the foul blot of polygamy will follow its equally foul sister, slavery, into oblivion.

A special from Washington semi-officially announces that George H. Pendleton intends to be a candidate for the Democratic presidential nomination two years hence.

Personal.

The family of Mirabeau is not extinct, Gabriel Victor, grandson of André Boniface Louis Riquetti, Vicomte de Mirabeau, who won distinction in the American Revolution, being yet alive, and bearing the title.

Few more curious and interesting essays in natural science have been written than Mr. Darwin's last work on "The Formation of Vegetable Mould through the Action of Worms." It is a subject which he first began to study more than forty years ago, and it has occupied his attention constantly during all that period. The intelligence of worms has been the object of his special observation, and the book is full of the most striking examples both of the scientific method and of its definite results.

By the death of his brother Erasmus, Dr. Darwin has inherited a large estate, said to be worth more than \$1,000,000.

It is reported that Mr. Herbert Spencer is about to go to Egypt, and is to be married to an American lady of fortune whom he first met there.

Governor Roberts of Texas has written and published a book concerning his State.

They are now talking of a celebration in honor of Daniel Webster. Whittier once celebrated him as Ichabod, "so fallen, so lost," and Wendell Phillips compared him to Samson bowing his head on the lap of Delilah of slavery.

A thousand persons of the *elite* of the medical and scientific world were present at the *fête* given to Prof. Virchow at Berlin lately, when Prof. Bastian presented him with the title-deeds of the Virchow Institute for promoting anthropological studies.

R. B. Hayes, Ex-President of the United States, has received the degree of LL. D. from Johns Hopkins University.

J. B. Peaslee, Superintendent of Cincinnati, and J. F. McCaskey, editor of the Pennsylvania *School Journal*, attended President Garfield's funeral at Cleveland, as Knights Templar.

Albert P. Marble has been re-elected Superintendent of the Public Schools of Worcester, Massachusetts, and salary increased to \$3,000. He has already served thirteen years.

President Angell of Michigan University, United States Minister to China, has resigned, and is on his way home.

At the recent meeting of Americanistas at Madrid, the descendant of Columbus, the Duke de Veragua, and the descendant of the Aztec emperors, the Duke de Montezuma, were present.

When the new Spanish Minister, Señor Don Francisco Barca, was presented to the President, he spoke of America as the "splendid and fortunate land dreamed of, for the service of God and of human progress, before others conceived of it, by the greatest of all Spanish women."

The Shah of Persia became captivated by the Princess of Wales while in England, and he every year offers the Prince a tempting price in exchange for her.

Victor Hugo dedicated the *Toilers of the Sea* to Guernsey, and the inhabitants of the island are to erect a monument to him. Such is Mr. James Parton's admiration of the great poet, patriot, and novelist that he has named his only son for him.

A brother of President Arthur married a daughter of the late eminent chemist, Dr. C. T. Jackson, who is also a niece of Mrs. Ralph Waldo Emerson.

Within a few months three patrons of education and benefactors of educational institutions have passed away. Mrs. Willard Fiske, Mr. Henry Durant, founder of Wellesley College, and Hon. E. B. Morgan, principal benefactor of Wells College and a Trustee of Cornell.

Educational.

If a boy is skilled in addition, subtraction, multiplication, and division, integral, fractional, and compound numbers, and knows how to compute percentage and one good way of casting interest, he can take care of himself in the commercial dealings to which his business incidentally calls him, and with that he can acquire facility in those computations which belong specially to his own branch of trade.—*Supt. A. J. Rickoff.*

Complaint is made in Philadelphia that the salaries of public-school teachers are inadequate, and it is said that the most competent teachers are resigning. Last year in the public schools of that city there were 1,988 female teachers and but 77 men, the average annual salary amounting to \$486.14.

Some good people in Boston, during the past vacation, have done an excellent thing by gathering four hundred of the poorer children of the city, for one session a day, in one of the large public school-houses, for a vacation school. The teachers were all volunteers, and the school was conducted on a broader gauge than in term-time. Miss Piper gave three lessons a week to several classes, according to the style of the Kitchen Garden, in various departments of household work.—*N. E. Journal.*

There are at present thirty special chairs of pedagogy at the German universities.

The 118 elementary schools of Berlin have 101,286 pupils, or about one-tenth of the whole city population.

Several German cities have established workshops in connection with elementary boys' schools. If the experiment gives satisfaction, the Prussian government will consider the advisability of establishing workshops in all the boys' schools of the kingdom.

The city of Berlin has twenty-one popular libraries, with 850,000 volumes. In 1880 the libraries were patronized by 75,069 artisans and laborers, 44,370 merchants and artists, 60,157 students of secondary and superior schools, 68,235 women, 983 soldiers, 26,042 city and State officials, and 18,245 teachers.

The city of Nordhausen has decided to establish a school garden after the model of the garden at Gera, where all the plants are raised which are used in the teaching of botany in the elementary schools.

The teachers' fund for widows and orphans of the city of Cologne has a capital of \$100,000.

The city of Hamburg has erected twenty-nine new school-houses since 1873, at a cost of nearly a million dollars. The annual expenditure for education amounts to nearly \$600,000.

Herr von Gossler, the newly appointed minister of public instruction for Prussia, seems to be still more in favor of church schools than his predecessor. Numerous communes are daily receiving permission to re-establish their sectarian schools, made unsectarian under the administration of Dr. Falk. The more enlightened teachers and friends of education are very much alarmed at this change.—*The Educational Weekly*.

There are 115,348 pupils in daily attendance in the New York schools. The estimate for 1881-1882 is \$3,836,925, which includes \$2,623,000 for teachers' salaries.

The Louisiana State University at Baton Rouge is offering special technical instruction to young men preparing for the life of a planter, or plantation mechanic.

J. P. Peaslee has been unanimously re-elected Superintendent of the Cincinnati Public Schools. He has already served seven years, as long as any preceding superintendent in that city. His salary has been raised to \$4,000.

The Oregon State University has received a gift of \$7,000 from Mr. Henry Villard, for the purpose of relieving its indebtedness; and the same gentleman has very generously offered to aid the University of Washington Territory with sufficient funds to enable it to go on with its work, the Territorial Legislature having failed so to do.

General Notes.

Mr. T. M. Coan, one of the highest authorities on statistical matters, sets the United States third among the nations of the earth as regards realized wealth. According to this authority, the United Kingdom of Great Britain and Ireland stand first, with a capital valuation of \$44,400,000,000; France next with \$36,700,000,000. Then follows the United States with \$32,000,000,000; Germany, with \$22,000,000,000; Russia, with \$15,000,000,000; and the Low Countries, with \$11,150,000,000. The Census Bureau of the United States estimates its realized wealth at several millions more than the above amount. Yet, even Mr. Coan's showing, while this country stands third in total capital, it equals the best in the per capita valuation of wealth, our annual average being \$165 per inhabitant; that of the United Kingdom, the same; that of the Low Countries, \$130; that of France, \$125; that of the British Colonies, \$90; that of Germany and the Scandinavian countries, \$85. The ratio of accumulation in Germany is \$200,000,000 per annum; in the United Kingdom it is \$325,000,000; in France it is \$375,000,000; in the United States it is \$825,000,000; which shows that we shall soon distance the world in the race for wealth.—*Educational Weekly*.

The population of New South Wales is estimated at 750,000, being an increase of 240,000 during the last ten years. The population of New Zealand is 489,561. The population of Tasmania is 116,000.

Mr. Wilfrid S. Blunt, who has spent so many years in the East, has devoted careful study and research as to the numbers of the Mohammedans, and calculates that they are not less than 175,000,000. During the last hundred years the progress of Islamism in Africa has been immense. The one great reason why the negro takes to the Prophet is, that at once he is accepted as a friend and brother by the Mohammedan missionary. He says to the negro, "Come up and sit beside me. Give me your daughter, and take mine. All who pronounce the formula of Islam are equal in this world and in the next."

The following is from a recent teachers' examination held in Wayne County, Iowa:

Q. What is a fraction? A. A part of a hole.

Q. What use do you make of a word the meaning of which you do not understand? A. You don't make much use of it, and when you do, not very much.

Q. Give a synonym of annals. A. Yearly.

Q. Give a synonym for celebrate. A. Thankingfull.

Q. Does it injure a pupil to have him learn to spell and pronounce words that he does not understand? A. I think it is.

Q. Give the meaning of the word disjoin. A. To join apart.

Q. How are the expenses of the U. S. Government defrayed? A. By *Licentious* fees for selling liquors.

Q. Who were the Puritans — why so called? A. The Puritans were a religious *sex* so called by England.

Q. Who were the Quakers? A. The Quakers founded Pennsylvania, led by William Tell.

Q. Write an application for a school. A. Corydon, Iowa, Aug. 24, 1881. Mr.— If you are willing to give me your school I am willing to take it. Yours—

Iowa Normal Monthly.

Alphons de Caudolle, the famous Swiss philosopher, says in a paper on the advantages to science of a dominant language, that the English language will undoubtedly lead all others in the coming century. It is the clearest and simplest, yet most direct and brief for business; it is the speech of the most progressive nations, and of many yet infant nations. No other language can maintain itself in rivalry with it. It is full of words, phrases, and tales pleasing to mothers, who are the chief teachers of language. No other language is so rich in works of interest to all.—*Educational Weekly*.

EDUCATIONAL INTELLIGENCE.

SAN FRANCISCO.—Since December this city has had a new board of education. The indications are that it is composed of earnest, intelligent men, conscientiously determined to administer the great trust confided to them as well as they know how. The idiotic wickedness of the last board of supervisors in reducing the appropriation to \$650,000 has so-crippled the department, that this board has been occupied mainly in devising ways and means for carrying on the schools until the end of the fiscal year without exceeding the appropriation. On organization, the board elected J. S. C. Stubbs of the C. P. R. R. as president. Dr. H. W. Fiske, already well known as one of the ablest and most honest members of a former board, is chairman of the Classification Committee; and Mr. J. F. Bacon of the same board is chairman on the Credentials Committee. Among the "economy" measures was the dismissal of the special teachers of bookkeeping and drawing. This is not a good step; for neither of these branches can be well taught without some supervision, and this they will not get now. A pernicious principle set by the last board and reaffirmed by this is, that the evening classes shall not be taught by day-school teachers. The result of this has been to rule out some of the best teachers of the department; in fact, those best calculated to teach evening schools to most advantage. It is difficult for us to understand any valid reason for this step. We believe the only safe and logical principle on which to conduct the affairs of this department, is to manage it in the interest and for the advancement of the children in the schools. The best teachers should invariably be selected, no matter how rich or how poor they are, whether they are married or single, whether men or women. It is not the province of a board of education to inquire into an evening teacher's circumstances or day work, unless that work incapacitates him from the evening employment.

In the death of Miss B. Peiser of the

South Cosmopolitan Grammar School, this department loses a faithful and excellent teacher; her friends, an estimable companion; and her parents, a devoted and loving daughter. The warm sympathy of many friends is with the afflicted ones in their sorrow.

The teachers of this city seem to feel but little regret at the expiration of the term of most of the old board of education. On the contrary, there is a general feeling of satisfaction. A few of the members are missed and regretted, notably Pres. Van Schaick, who during his administration distinguished himself as a firm friend of the teachers, and a consistent supporter of our entire school system. He carries with him into retirement the best wishes of the entire department.

ALAMEDA COUNTY.—Mrs. Octavia Wetmore obtained judgment in the Justices' Court for \$210 for arrears of salary due by the board of education of Oakland. Mrs. Wetmore was employed as a teacher by the board, and she claimed that the engagement was for a year. Going away on leave of absence, when she returned her place was filled, and she brought suit for salary for the months of November and December, 1880, and May, 1881.

J. H. Sumner of the Swett school, in East Oakland, has been dangerously ill with typhoid fever for some time. He is now recovering.

Washington College—Rev. S. S. Harmon, principal—opened after the winter vacation last week. The corps of teachers is the same, except that Prof. Robert E. Bush has been engaged to fill the vacancy caused by the resignation of Prof. Worthen. The attendance is larger than last term, the old pupils having nearly all returned, and a number of new ones having entered.

SANTA CLARA COUNTY.—The Normal school opened last week for the second term of the school year. Three hundred and twenty-eight old pupils have

returned for the present term. There are one hundred and sixty-eight new pupils. This is the largest number ever enrolled during the second session of any year since the organization of the school. Never before has the school done such satisfactory work, nor has the outlook for the future been so bright. The firm determination of the faculty to keep the moral as well as the professional standard of the school on the highest plane, together with the hearty support of the board of trustees, is producing the legitimate result of a school well filled by students earnestly devoted to the ends for which the institution is established and supported. The large attendance has necessitated the employment of an additional teacher. The trustees, at the last meeting, accordingly elected Prof. George Kleeburger, principal of the Marysville High School, to a position. This is an eminently good selection. Prof. Kleeburger is a fine scholar, and a teacher of marked ability. He has served with success in one of the Wisconsin State Normal Schools, and he will be a decided acquisition to our institution.

Miss Lucie Owen of San Jose, a teacher in the Santa Cruz public schools, has been promoted to the principalship of the Branciforte school. Miss Owen is the daughter of the able and well-known editor of the *San Jose Mercury*, and ranks as a lady of culture and a very successful teacher.

TEHAMA COUNTY.—This county has a live superintendent—Myron Yager—as the following extracts from a letter recently received from him will show:

"We are now collecting nine special school taxes for building purposes. Four houses have been built within the past year by subscription, and one by the insurance money paid by an insurance company. We have just received \$650 from an insurance company for a country school which burned since our Institute. All furniture and library books were saved. Most of our school buildings in this county are a credit to the districts in which they stand. The building lately burned was in the Montgomery school district, and the trustees are live men, and have the lumber and material on the ground for a new school-house, which will be built immediately. All our schools

are in a very flourishing condition, and the people are interested in our cause."

MERCED COUNTY.—We extract from a letter from Supt. Dixon the following items in regard to education in that section. It will be seen that Supt. Dixon is enthusiastic and able. "I will say, having made my usual semi-annual trip to all the schools, and examined the different classes in each, I am glad to report a steady progress in all except two or three, and I hope to remove the difficulties in these before very long. Several districts are now erecting new and comfortable school-houses, and furnishing them with the most improved furniture, with funds by special tax, which of itself shows a raised growing interest on the part of the patrons; and I am determined while my term lasts to use every effort to have other districts in which they are needed follow the good example."

NEVADA NOTES.—The Teachers' Institute of Lyon County was held at Dayton on the 25th of November, County Supt. J. E. Bray presiding.

County Supt. W. W. Boocker and Prof. T. J. Boocker, Mills Van Wagnen, and T. B. Gray of Storey County were in attendance, and participated in the discussion upon methods of teaching.

The subjects discussed were introduced either by essay or model lesson as follows: Reading, by Misses Minnie Lislie of Dayton, and Rothschild of Sutro; Grammar, by Miss Maggie Holmes of Silver City; Arithmetic, by Prof. Carr of Silver City.

Miss Kate Courtney of Waubusca took an active part in the exercises, as did all the others teachers in attendance.

Prof. Dovey, recently of the State University, is visiting old friends on the Comstock.

Prof. C. S. Young of Gold Hill shouldered a pick and shovel during vacation, which he seems to have handled successfully. A company has been organized to work a silver-bearing quartz vein discovered by him; and now his dreams of golden nuggets are not confined to his sleeping hours.

Prof. T. N. Stone has taken charge of the State University.

The regular monthly meeting of the Teachers' Institute of Story County was held in Virginia City December 9th.

BOOK NOTICES.

MONROE'S VOCAL AND GYMNASTIC CHARTS.
Philadelphia: Cowperthwait & Co. Price,
\$8.

These Charts embody the daily physical drill of the Boston University School of Oratory. We may receive them as the valuable legacy of Prof. Lewis B. Monroe, the talented and lamented author of the well-known little class drill-book of Vocal and Physical Culture.

They number twenty-two large sheets of stout Manilla paper, each 28x24 inches, and printed on both sides. This gives forty-four charts, each larger than the well-known Penmanship Charts of Payson, Dunton & Scribner, and presenting in all nearly two hundred square feet of chart surface.

These sheets, with handsomely-lettered and indexed covers, are firmly fastened together at one end, strongly secured in a neat, black-walnut strip, and furnished with screw eyes, and crimson cords all looped ready for convenient and speedy suspension.

The first eleven show Positions and Carriage of the body in Sitting, Poising, Standing, Reading, Speaking, Walking, and Exercising. The next five teach the Carriage and Development of the Chest, Shoulder and Arm Movements for Expanding, Developing, and Strengthening the Chest and Lungs, which is but another name for giving increased life power to every practicer. The last six explain and enforce Breathing Exercises, compelling the right uses of the muscles of the Diaphragm, Throat, Lips, Tongue, and Jaw, necessary to Exact Articulation, and the Production and Projection of Pure Tone.

Numerous illustrative cuts, large enough to be seen across an ordinary class-room, all fully described and explained in bold-faced type, make these so perfectly intelligible and attractive as guides and helps, as to be second in value only to the living teacher.

The reverse sides of these twenty-two sheets present as many charts of the Sounds of the English Language for Class Drill in Articulation, with Diagrams and cuts illustrating Bell's Visible Speech. The very ingenious, philosophical, and intelligible symbols of this famous system, the reasons of their selection, and the positions of the vocal organs in forming the sound repre-

sented by each symbol, are clearly figured or printed here. These characters do for speaking what phonography has for so many years successfully done for writing. At several educational conventions in prominent Eastern cities, Prof. Bell, or some competent representative has repeatedly and triumphantly demonstrated the perfect readiness and accuracy with which these almost photographic symbols represent *any* language exactly as spoken.

In these ingenious diagram symbols or phonograms, the illustrious inventor of the telephone has made the closest approach yet devised to a complete universal alphabet, capable of faithfully representing the sounds of all spoken languages.

In both series of charts, the elementary sounds are accompanied by concise and correct directions how to form them, so clear and simple that the teacher of even average intelligence and taste, can easily and safely guide herself and pupils into a most interesting and beneficial use of these excellent dumb teachers, that never lose their patience nor scold their dullest pupils.

These most valuable charts should hang in every class-room, from the lowest Primary to the highest University, and should furnish, several times a day, that sharp, five-minute drill, which should be the immediate and indispensable introduction to every exercise in Reading, Speaking, Recital, or Declamation.

PORTRAITS OF THE PRESIDENTS OF THE UNITED STATES, with fac-similes of their Signatures. Price, \$5. For sale by J. A. Hoffman, 208 Montgomery Street, San Francisco.

This is a set of exquisite steel-plate portraits, cabinet size, of the Presidents. The likenesses are all said to be authentic; those of Lincoln, Johnson, Grant, Hayes, Garfield, and Arthur we know to be so. We believe that the Library Fund could be put to no better purpose than to buy a set of these portraits, have them framed, and hung in the school-house.

AN HISTORICAL READER. By Henry E. Shepherd, M.A., Supt. of Public Instruction, Baltimore, Md. New York: D. Appleton & Co. San Francisco: James T. White & Co. 345 pp.

In no way can we more clearly state the

motives which led to the writing of this book, and the general plan on which it is constructed, than by quoting from a report of Supt. Shepherd to the Baltimore School Commissioners, in 1878. He says :

"The most serious error that prevails in connection with this subject, is the defective and vicious method by which the teachers of history are fettered and embarrassed. I have long been convinced that epitomes or abridgments are comparatively valueless, except for those who have already acquired a knowledge of the subject which the epitome or abridgment professes to treat. The difficulty of condensing or abridging any historical narrative, without destroying its very life and spirit, is one long felt and recognized.

"It is one of the defects of the compendium method that the pupil is not only unable to discover the significance and relation of events, but often he draws inferences, and forms impressions, that are utterly erroneous and misleading. Its abuses are positive as well as negative. Let any one that desires to test the correctness of the assertions I have made examine a class in one of our American high schools, upon the decline of the Western Roman Empire, the revival of the Empire under Charlemagne, the Thirty Years' War, the English Revolution of 1688, the Wars of the Roses, the causes of the American Revolution, and, if the examiner has even a moderate acquaintance with the subject, he can not fail to discover how frequently the pupils misconceive the significance of these great crises in human history. In all literary as well as historical instruction, conducted as it is in most American schools, precipitate generalization is the characteristic weakness.

"The present Reader is an endeavor to test, by actual experiment, the correctness of the views set forth in detail above. The work consists of a collection of extracts representing the purest historical literature that has been produced in the different stages of our literary development, from the time of Clarendon to the era of Macaulay and Prescott. There has been no attempt to preserve chronological order, the design of the work being to present to the minds of young pupils typical illustrations of classic historical style, gathered mainly from English and American writers. Most of the extracts of which the Reader is composed are descrip-

tive, clear, and suggestive. Many of them cannot fail to excite the interest and arouse the sympathy of young readers. To create and develop a fondness for historical study—a sentiment that the compendium can never infuse, but which, on the contrary, it tends to repress and extinguish—have been my constant aim and endeavor. Every era of historical development, from the rise of Athenian greatness to the accession of Victoria, has been carefully represented. Many of the selections have never appeared in any previous historical reader. A liberal share has been assigned to the delineation of historical characters, in accordance with the views enunciated in the report. The greater number of those eminent personages around whom the interest, especially of modern history, concentrates, are drawn by some one of our historical portrait painters, as Burnet, Clarendon, Lecky, Froude, or Macaulay."

Especial attention is directed to this book, as one eminently worthy of being placed in the hands of every teacher, and on the shelves of every school library.

The 75th birthday of the poet Longfellow, which will occur on the 27th of February, will be celebrated in many schools throughout the country by readings and recitations from his writings. To all schools which propose thus to observe the occasion, Messrs. Houghton, Mifflin & Co., of Boston, the publishers of Mr. Longfellow's works, offer to send gratuitously copies of a neatly printed biographical sketch of the poet, with a fine portrait of him, and a picture of the famous and historic mansion at Cambridge in which he lives. Early application should be made, and the number required in each school stated.

The Longfellow Leaflets, published by the same firm, are admirably adapted for these celebrations, and will be sent to any address, post-paid, on receipt of 50 cents by the publishers. For 75 cents they will send the leaflets, and an excellent colored lithograph of Mr. Longfellow's house.

BOOKS RECEIVED.

THE INTERMEDIATE SPEAKER. By Prof. J. H. Gilmore. Henry A. Young & Co. For sale by all booksellers. 164 pp. 75 cents.

THE VERBALIST. By Alfred Ayres. D. Appleton and Co. For sale by James T. White & Co. 220 pp. \$1.00.

PRESIDENT GARFIELD AND EDUCATION. by Pres. B. A. Hinsdale. James R. Osgood & Co. For sale by all booksellers. 433 pp.

POPULAR SCIENCE READER. By James Monteith. A. S. Barnes & Co. For sale by all booksellers. 360 pp.

WORD-BUILDING. By S. S. Haldeman, LL.D. J. B. Lippincott & Co. For sale by J. A. Hoffman. 55 pp.

GANOT'S NATURAL PHILOSOPHY. By Wm. G. Peck, LL.D. A. S. Barnes & Co. For sale by all booksellers. 530 pp.

LECTURES ON TEACHING. By J. G. Fitch, M.A. University Press. For sale by A. L. Bancroft & Co. 436 pp. \$2.25.

SPARKS FROM A GEOLOGIST'S HAMMER. By Alex. Winchell, LL.D. Chicago: S. C. Griggs & Co. 400 pp. For sale by A. L. Bancroft & Co.

WORDS, FACTS, AND PHRASES. By Edwards. J. B. Lippincott & Co. For sale by J. A. Hoffman. 361 pp.

TREASURY OF GENERAL KNOWLEDGE. (Part I.) By Celia Doeuser. Van Antwerp, Bragg & Co. 205 pp.

FIRST FRENCH BOOK. By Jas. H. Worman, A.M. Barnes & Co. For sale by all booksellers. 82 pp.

PRACTICAL GRAMMAR. By Noble Butler. Morton & Co. Louisville, Ky. For sale by all booksellers. 288 pp.

OR BOARD THE ROCKET. By Robt. C. Adams. D. Lothrop & Co. For sale by all booksellers. 335 pp.

LITERARY NOTES.

The *North American Review* will present in its February number, to be published on the 15th of January, Part III. of its series of articles on The Christian Religion. It will be from the pen of Geo. P. Fisher, the eminent professor of ecclesiastical history in the Yale Divinity School—as thorough a scholar and as able a defender of the Christian faith as this country affords. A powerful presentation of the claims of Christianity is expected.

In the *Atlantic* for February there is even more than the usual fine list of topics and authors. This will be seen by a few examples. We have The Bay of Seven Islands, by John Greenleaf Whittier; Some Traits of Bismarck, by Herbert Tuttle; An Echo of Passion (IV., V.), by George Parsons Lathrop;

Tom's Husband, by Sarah Orne Jewett; In the Silent, the Silent November, by George Parsons Lathrop; Richard Grant White, by E. P. Whipple; Daniel Webster, by Henry Cabot Lodge; Beethoven, by Owen Wister; Origin of Crime in Society (III.), by Richard L. Dugdale; The House of a Merchant Prince (I., II.), by William Henry Bishop.

There really seems to be something in the Howard Method for cultivating the voice, advertised in our January and present issue. We know of several teachers who have tried the method with results so eminently satisfactory, that they very enthusiastically recommend it to all. We suggest a trial.

The *Christian Union* for January 5th appears with a new and artistic heading, and the substitution of Roman for italic titles and head-lines throughout the paper. The same number contains the article on the Utah problem, by the late Dr. Bacon, which was found unfinished on his desk the morning after his death. It treats the subject with the writer's accustomed force, and with the pathos that attaches to anything that conveys one's last thoughts.

Venerated names in literature lend a peculiar interest to the contents of the midwinter number of the *Century*, which will include among its contributors Ralph Waldo Emerson, Henry W. Longfellow, and the late Dean Stanley. Other familiar names in the list of contributors are E. C. Stedman, W. D. Howells, Mrs. Francis Hodgson Burnett, H. H., Maurice Thompson, Frank R. Stockton, and George E. Waring, Jr.

The fiction of the midwinter (February) number of the *Century* will embrace the continuation of A Modern Instance, by Mr. Howells; another chapter of Mrs. Burnett's Through One Administration; a racy story by Frank R. Stockton, entitled Euphemia among the Pelicans, which introduces two or three familiar characters of the Rudder Grange series; and the play of Esmeralda, by Mrs. Burnett and W. H. Gillette, which is having a long and successful career at the Madison Square Theater.

The London *Times* of December 20th, 1881, says of American literature for children, "There is an old song which sings how a certain venerable man delighted to pass the evening of his days in initiating his grandchild in the exhilarating game of draughts, and how, so well did the lad profit by his instruction, that at last 'the old man was beaten by the boy.' In looking over the two parts of *St. Nicholas*, the old song has come back to us. Certainly the producers of such literature for our own boys and girls must look to their laurels. Both in the letter-press and the engravings these two volumes seem to us (though the admission touch our vanity or our patriotism, call it by which name we will, something closely) above anything we produce in the same line. The letterpress, while containing quite as large a power of attraction for young fancies, is so much more ideal so much less commonplace, altogether of a higher literary style than the average production of our annuals of the same class. And the pictures are often works of real art, not only as engravings, but as compositions of original design."

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PROFESSIONAL TRAINING.*

I HAVE been invited by the Executive Committee of the association to prepare a paper upon Professional Training. Assuming this to have relation to our own profession, I infer that the committee take it for granted that teaching is a profession. So far as they are concerned, I need, therefore, devote no time to any argument upon this subject, nor is it presumable that such an argument is needed before this audience.

I will, however, before entering upon the discussion proper, extend my congratulations to the fraternity, that we may consider this question now settled: that teaching may not only be ranked with the professions, but with the learned professions. It has reached this recognition only after a long, hard struggle. From the time when we were caricatured as tramps, lean, long, and with a hungry look, bearing the motto, "We will chop wood for ten dollars a month, get out flax for nine, or teach school for eight"; or from the time when the ferrule and spelling-book were considered the proper insignia of our calling up to the present, many a hard battle has been fought; for we have been assailed by "Deacon Homespun" *without*, and been brought into discredit by "Master Ignoramus" *within*. The outside foes are now well-nigh silenced. Shall we ever rid ourselves of the dead weights within?

It is said that Oscar Wilde sums up esthetic aspirations in saying, "We should at least strive to live up to our china." Should we not revolve and exhort our co-workers to live fully up to what we claim for ourselves and for our work?

* A paper read before the State Teachers' Association, Dec. 29, 1881.

When we admit that teaching is a profession, we are forced to admit also that there is a science of education. The relation between art and science is doubtless familiar to you all; but as I shall need to refer to it in my argument, I will repeat it: Art exists first, and is the parent, having science as its offspring. As an art grows and more nearly approaches perfection, from it is deduced a science; then science, like a dutiful child, turns back and perfects the art. All this is the work of time. The deductions from which a science is formulated must be drawn from almost numberless experiments—experiments carefully performed. The results must be collected and assorted by close observation and excellent judgment. From these laws are deduced, and the principles upon which the laws are founded. Then, and not till then, the science is born. The reflex action of the science upon the art is a still slower process; for the great mass of workers will continue long to be mere artisans, and will be slow to "move up higher" and become true artists. We are now in this latter stage. The most sanguine believer in the proposition that teaching is a profession will hardly claim that a very large number engaged in the work are professional teachers. With the mass, teaching is yet only an art, and not a science.

To diminish the number of the former by increasing the number of the latter, professional or normal schools were established. The establishment of these has been simultaneous with the recognition of the fact that teaching is a profession, and then growth commensurate with the growth of this belief. Beginning in the Old World, they have rapidly spread, until there is no country with a well-established system of public education, hardly a State that has made any educational progress, that has not one or more normal schools, the number in some of the larger and older States reaching as high as thirteen. In no case, so far as I know, where normal schools have been fairly established, have they ever been permanently done away with. In a few cases there have been reactions, temporary suspensions, or pecuniary embarrassments. An examination of these cases shows that the interference has arisen from one of these causes: the schools have strode too far ahead of public opinion, or they have stepped aside from the legitimate work of such schools, or they have been made the victims of partisan politics. That normal schools have thus won their way is really surprising when we reflect upon the difficulties that have stood in the way. They have had to meet and combat the opposition of other schools which were attempting, and in many cases doing fairly well, the same work, and with whose revenues the normal schools have greatly interfered. They have also met the strong opposition of the typical old fogy teacher, who has seen in the work they were doing the omen of his own displacement. There has also been and yet is a difficulty in manning the normal schools with professionally trained teachers. This difficulty is gradually passing away; but the earlier schools were very often obliged to select their teachers from the ranks and file of the profession with regard only to scholarship and success in the ordinary work of teaching. It needs no argument to show that to put into the normal schools those who have never made a distinct study of the science of education is to yield the whole question of professional schools.

But, as has been said, most of the difficulties have disappeared, and it is safe now to assert that normal schools are established on as sure a foundation as are the public schools of other grades.

I now proceed to consider the professional school and its work. Who should be entitled to the privileges of such schools? The outer door should be safely guarded; only those who, in bodily health, mental vigor, and moral character, bid fair to make good teachers should be admitted. As it is always difficult and often impossible to prejudge in reference to these qualifications, and as such prejudgment might create great dissatisfaction, there must be ways and means provided to drop from time to time from the ranks of prospective teachers those who show unfitness in either of these respects. And to be dropped from such a school need impute no discredit to the individual. A young man may make an excellent farmer or mechanic, or may fit himself for many other of the professions, who has not the peculiar qualifications necessary to become a successful teacher; and a young woman may make an excellent seamstress or milliner, or may fit herself to adorn almost any walk in life, who would, after all the training the school could give her, make but an indifferent teacher. Our gifts are not all the same, nor can we all fit ourselves for every position. These considerations, perhaps, more than any other one thing, have led to the wise establishment of normal schools upon a basis where no temptation in the way of large attendance or coffers well filled with tuition fees can lead those in charge to swerve from the full exercise of judgment and the full discharge of duty. And for this reason, we have a right to hope much more from State institutions, removed as far as possible from all such considerations, than from most other schools. In saying this, I would accord to all the desire to do their full duty. But we well know how our interests, in spite of our efforts, will influence our judgments.

Having entered the professional school, the pupil should find the work of every day so planned as to bring him nearer the desired end. He should be trained physically, mentally, and morally for his coming work; until his body is healthful, pliant, active, and, as far as may be, graceful; his intellect disciplined to habits of quick and close perception, careful and exhaustive examination, rapid and accurate judgment; his moral nature ready to do what he *ought*, rather than what he *desires*, to do. With all this, and above it all, he should be trained to habits of entire and perfect self-control.

This training requires time. While he is receiving it, the student may acquire much of the knowledge that will be requisite in his after work. Indeed, the process of acquiring knowledge may be so conducted under skillful, trained teachers, that he shall receive much of this training during his ordinary class-work. His movements to and from classes, his attitude in class and recitation work, will hardly fail to give him an erect figure and an elastic step. In drawing and penmanship he will obtain ease and grace in the use of the hand and arm; and in reading and vocal music, a mastery of the voice (that most perfect of all musical instruments, and the one he is so constantly to use), which will almost insure his future success.

But besides this incidental training, there is a line of professional studies

with which, as he becomes strong enough to master them, he should become acquainted. Without attempting to give these in their logical order, I will merely mention what they should comprise.

As he is to work upon the human mind, it is of vital importance that he become acquainted with the laws, so far as they are known, that govern mental growth and development. I do not know that it is desirable for him to master the full and extensive treatises on mental and moral philosophy; but he should know at what age in child life the various faculties are ready for training, in what way and how far this training may be carried on at a given age, and how to judge of results. He should know what exercises and which studies in the school curriculum are best adapted to the training of certain faculties. He should know the relations existing between these faculties and the subjects taught. Without this knowledge, in his after work he will be prone to do what there is reason to fear too many are now doing in the school-room—burdening the memory with that which should be learned and held by the judgment and understanding. He will present things subjectively that should be presented objectively; and all through his work he will be likely to repeat the error, now so well recognized by thoughtful teachers, of reversing the natural order of presenting a subject. In this way, he will not only waste much valuable time, but will make his pupils stupid, and disgust them with study. To illustrate: to appeal to the memory in most mathematical work is as foolish as to attempt to count by the sense of touch, when by the sense of sight it can be done in a hundredth part of the time, and better done at that.

Nothing can take the place of this study of mind. At best, our knowledge of mental operations and mental growth is defective; yet much is known, and every intelligent, trained teacher becomes one more observer in the field, and not only adds to his own knowledge, but should from time to time contribute to the stock of human knowledge in this direction.

The student is now ready to study methods of instruction. Under this head, every study and every exercise in the school course should be fully treated. The questions to be raised are such as these: To what faculties does this study most directly appeal? What faculties is it especially adapted to train and strengthen? To what extent is it a knowledge study? and to what extent a training or power study? What preparation has the child had in previous studies or exercises for this? How far, and for what studies that are to come can this be made a preparation? What relation does this bear to other studies which the pupil is now pursuing? How much of what is given in this is it needful to master thoroughly? and how much may be left as only a matter of general information, to be referred to hereafter if ever needed? What is the relative importance of this study in the course, and how much time should it therefore receive at our hands? Only in the light of these and similar questions can a proper method of teaching be developed. Probably no one thing marks the difference between professional and non-professional teaching more than this. The unprofessional, or perhaps I should say the unscientific, teacher teaches each subject by itself. He looks neither at what has preceded nor what is to follow it. He may do the thing in hand well; may

secure great proficiency in work, and have his pupils seemingly well taught; but if he has not connected the matter just acquired with something going before, and fitted it for something either in school or in life coming after, his work will ravel out like the fibers of an unhemmed garment. The teacher who makes a science of teaching always, where it is possible, goes from the known to the unknown. No study and no exercise stands alone. Like the ends of the bones in a skeleton, each fits symmetrically into place, and is held there by something going before and something coming after, by something related on either side; and being thus held in place by the ligaments of judgment and understanding, it remains a permanent part of the mind itself. There is another equally broad distinction between the professional and the unprofessional teacher. Only those who have, in a measure at least, mastered the science of teaching can properly exercise the rare but most essential power of selection; that power which at once and clearly recognizes the difference between the essential and the non-essential points in a subject, and which leads him to do with thoroughness the one, and to leave the other, if not undone, at least as a matter of minor importance.

Under the head of methods of teaching should also come specific instruction in class work; that is, how to handle classes in different subjects, how to awaken and keep up the interest of each pupil, and how to get the necessary amount of cheerful work from all. One who has ever spent much time in visiting schools must have been forcibly struck with the wide differences in this respect to be found even among good teachers. And while much may be acquired by careful and extended observation, yet there is a philosophy underlying all this that makes it possible for most persons to acquire by study skill in the work of conducting recitations.

A very important part of professional training consists in the practice work which is required from students before they graduate. It is true that this teaching is done under peculiar circumstances. They will rarely in after work be called upon to instruct or manage pupils under the same conditions. But with the supervision of a careful and kindly critic in methods much may be accomplished. First, the attention of the student will be called to any undesirable mannerisms which he may possess. How many of us, if we "could see ourselves as others see us," would drop from use certain pet phrases or peculiar motions which we have perhaps entirely unconsciously fallen into, and which really mar our work. And when we reflect that our mannerisms are likely to be stamped upon our pupils by an "unconscious tuition," we see the importance of this part of the work.

Second. In this practice-work pupil-teachers acquire more confidence in a few weeks under the guidance of a competent critic than they would in months of work by themselves; and at the same time there is a wholesome check to that over-confidence sometimes found in young teachers. Those of us who can recall the floundering, struggling work of the first few weeks of our teaching without chart or compass, and with no landmark save the faint recollection of what our last teacher did, can readily appreciate the assistance that even a short term of practice under proper guidance can give. In his practice-

teaching the pupil-teacher, as far as may be, applies the theories given in his instruction in methods, tests them, and comes back to ask further instruction.

Third. In the training or practice schools he learns to realize the difference between knowing a subject and knowing about it. Here his knowledge is tested, his readiness, his accuracy, his skill. Subjects that he thought perfectly familiar seem now but dimly understood. In a few weeks he discovers that to know a thing well enough to teach it properly, is quite a different thing from knowing it so as to stand a creditable examination in his classes. And now, perhaps for the first time, he sees the full purpose of his previous training in the normal school. He goes from the training school a better student in every thing because of what he has learned there. Of course in this work he acquires some skill in handling and managing classes. He is required to use child-language, to give instruction clearly and definitely, to write out a plan of his work, submit it for criticism, and defend it.

I am fully convinced, from wide observation, that a few weeks in the practice school is of more value in making good teachers than months or even years in which the teacher has no guidance.

CHAS. H. ALLEN,

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WHAT WORMS KNOW, AND WHERE THEY LIVE.*

IF worms are able to judge, either before drawing or after having drawn an object close to the mouths of their burrows, how best to drag it in, they must acquire some notion of its general shape. This they probably acquire by touching it in many places with the anterior extremity of their bodies, which serves as a tactile organ. It may be well to remember how perfect the sense of touch becomes in a man when born blind and deaf, as are worms. If worms have the power of acquiring some notion, however rude, of the shape of an object and of their burrows, as seems to be the case, they deserve to be called intelligent; for they then act in nearly the same manner as would a man under similar circumstances.

To sum up: as chance does not determine the manner in which objects are drawn into the burrows, and as the existence of specialized instincts for each particular case cannot be admitted, the first and most natural supposition is that worms try all methods until they at last succeed; but many appearances are opposed to such a supposition. One alternative alone is left, namely, that worms, although standing low in the scale of organization, possess some degree of intelligence. This will strike every one as very improbable; but it may be doubted whether we know enough about the nervous system of the lower animals to justify our natural distrust of such a conclusion. With respect to the small size of the cerebral ganglia, we should remember what a mass of inher-

* From "The Formation of Vegetable Mold through the Action of Worms, with Observations on their Habits," by CHARLES DARWIN.

ited knowledge, with some power of adapting means to an end, is crowded into the minute brain of a worker-ant.

The burrows run down perpendicularly, or more commonly a little obliquely. They are said sometimes to branch, but as far as I have seen this does not occur, except in recently dug ground and near the surface. They are generally, or, as I believe invariably, lined with a thin layer of fine, dark-colored earth voided by the worms; so that they must at first be made a little wider than their ultimate diameter. I have seen several burrows in undisturbed sand thus lined at a depth of four feet six inches; and others close to the surface thus lined in recently dug ground. The walls of fresh burrows are often dotted with little globular pellets of voided earth, still soft and viscid; and these, as it appears, are spread out on all sides by the worm as it travels up or down its burrow. The lining thus formed becomes very compact and smooth when nearly dry, and closely fits the worm's body. The minute reflex bristles which project in rows on all sides from the body thus have excellent points of support; and the burrow is rendered well adapted for the rapid movement of the animal. The lining appears also to strengthen the walls, and perhaps saves the worm's body from being scratched. I think so, because several burrows which passed through a layer of sifted coal-cinders, spread over the turf to a thickness of one and one-half inches, had been thus lined to an unusual thickness. In this case the worms, judging from the castings, had pushed the cinders away on all sides, and had not swallowed any of them. In another place burrows similarly lined passed through a layer of coarse coal-cinders three and one-half inches in thickness. We thus see that the burrows are not mere excavations, but may rather be compared with tunnels lined with cement.

The mouths of the burrows are, in addition, often lined with leaves; and this is an instinct distinct from that of plugging them up, and does not appear to have been hitherto noticed. Many leaves of the Scotch-fir or pine (*pinus sylvestris*) were given to worms kept in confinement in two pots; and when after several weeks the earth was carefully broken up, the upper parts of three oblique burrows were found surrounded for lengths of seven, four, and three and one-half inches with pine leaves, together with fragments of other leaves which had been given the worms as food. Glass beads and bits of tile, which had been strewed on the surface of the soil, were stuck into the interstices between the pine leaves; and these interstices were likewise plastered with the viscid castings voided by the worms. The structures thus formed cohered so well that I succeeded in removing one with only a little earth adhering to it. It consisted of a slightly curved cylindrical case, the interior of which could be seen through holes in the sides and at either end. The pine leaves had all been drawn in by their bases; and the sharp points of the needles had been pressed into the lining of voided earth. Had this not been effectually done, the sharp points would have prevented the retreat of the worms into their burrows; and these structures would have resembled traps armed with converging points of wire, rendering the ingress of an animal easy and its egress difficult or impossible. The skill shown by these worms is noteworthy, and is the more remarkable as the Scotch pine is not a native of this district.

Worms prepare the ground in an excellent manner for the growth of fibrous-rooted plants and for seedlings of all kinds. They periodically expose the mold to the air, and sift it so that no stones larger than the particles which they can swallow are left in it. They mingle the whole intimately together, like a gardener who prepares fine soil for his choicest plants. In this state it is well fitted to retain moisture and to absorb all soluble substances, as well as for the process of nitrification. The bones of dead animals, the harder parts of insects, the shells of land mollusks, leaves, twigs, etc., are before long all buried beneath the accumulated castings of worms, and are thus brought in a more or less decayed state within reach of the roots of plants. Worms likewise drag an infinite number of dead leaves and other parts of plants into their burrows, partly for the sake of plugging them up and partly as food.

The leaves which are dragged into the burrows as food, after being torn into the finest shreds, partially digested, and saturated with the intestinal and urinary secretions, are commingled with much earth. This earth forms the dark-colored, rich humus which almost everywhere covers the surface of the land with a fairly well-defined layer or mantle. Von Hensen placed two worms in a vessel eighteen inches in diameter, which was filled with sand, on which fallen leaves were strewed; and these were dragged into their burrows to the depth of three inches. After about six weeks an almost uniform layer of sand, a centimeter (.4 in.) in thickness, was converted into humus by having passed through the alimentary canals of these two worms. It is believed by some persons that worm-borrows, which often penetrate the ground almost perpendicularly to a depth of five or six feet, materially aid in its drainage; notwithstanding that the viscid castings piled over the mouths of the burrows prevent or check the rainwater directly entering them. They allow the air to penetrate deeply into the ground. They also greatly facilitate the downward passage of roots of moderate size; and these will be nourished by the humus with which the burrows are lined. Many seeds owe their germination to having been covered by castings; and others buried to a considerable depth beneath accumulated castings lie dormant until at some future time they are accidentally uncovered and germinate.

A JOYFUL evening may follow a sorrowful morning.

PRAISE undeserved is satire in disguise.—*Broadhurst.*

WHAT is a hoodlum? A boy rotten before he is ripe.

WE put up with folly more patiently than we do with justice.

To know nothing about their great men is one of the necessary elements of an English education.—*Oscar Wilde, the Lily.*

To disagree with three-fourths of all England on all subjects is one of the first elements of sanity.—*Oscar Wilde.*

GOOD actions ennable us, and we are the sons of our own deeds.—*Cervantes.*

ENGLISH COMPOSITION.

THIRD PAPER.

IN the interesting and instructive paper on Reading to which we listened a few days ago, I was glad to hear this training of the *ear* emphasized. Much extremely useful work in composition may be made a part of the reading lesson, and is absolutely essential to success in writing. Not long ago I requested pupils of my class to give me in writing their ideas on the subject of Composition. One of them expressed herself about oral work as follows:

"When we are given a subject that we understand and like and know a good deal about, I think it is *fun* to write a composition about it. I have noticed that we all, that is, our class, express our thoughts on paper much better than in words. So I think we need more practice in that. In the first grade sometimes, instead of declaiming, we had to talk on any subject for two minutes, which we disliked more than writing compositions. But yesterday we told our observations about vines just as we would recite a lesson, and it did not seem such an awful undertaking; in fact, I think we all rather enjoyed it."

VIII. Hitherto we have considered methods in which the *thought* has been furnished by the teacher. As a step toward invention, let us give only a suggestion in an exercise which we may call "word pictures." Name an object, such as man, dog, door, shelf; and actions, such as jumping, hiding, ringing; or a phrase, such as "under the tree," "across the bridge"; or a clause—"when he opened the box," "when he heard the gun," "when they opened their eyes." Let the class discover for themselves by repeated trials that such words or phrases necessarily bring before them a picture of some known object or action, and that a bridge or a cat or a man cannot exist in their minds as an abstract idea. Then tell them to reproduce the pictures they see when you give the word. It is entertaining as well as instructive. I recall an exercise based on the sentence, "They disappeared one by one," in which a perfect kaleidoscope of scenes appeared, from a plate of doughnuts disappearing one by one before the attack of a hungry boy, to the wreck of a gallant ship whose passengers sank one by one beneath the waves.

IX. The most advanced form of composition involves the production of original thought; first on a given subject, and last and highest on a theme selected by the writer himself; this latter form being rarely reached except in high and normal classes. As a preparation for an essay on a given subject, pupils must be instructed how to gather material, and how to arrange their ideas in logical order. Personal observation, reading, and conversation are legitimate sources of information. Pupils need instruction as to the proper use of encyclopedias and other books of reference. Too often *verbatim* extracts from these are offered, undigested and unassimilated. Dr. Arnold of Rugby says: "I call that the best theme which shows that a boy has read and thought for himself; that the next best, which shows that he has read several books and digested them; and that the worst, which shows that he has followed one book, and followed that without reflection."

The great variety of useful and important work needful to be done which relates purely to forms I have not touched upon, because it is so fully treated in our text-books. Though the immature mind of the learner may fail to apprehend it fully, the truth should be ever prominent in the teacher's mind that words and sentences, however choice and well arranged, are but the bones and skeleton of composition; that they must be vitalized by living, breathing thought; that the true end of composition is the embodiment of *ideas*, to which end all purely constructive work must be but a necessary preliminary. If one desires an illustration to aid in impressing this on the minds of a class, the author of that charming book, "Alice in Wonderland," furnishes the following:

" They told me you had been to her
And mentioned me to him;
She gave me a good character,
But said I could not swim.

" I gave her one, they gave him two;
You gave us three or more;
They all returned from him to you,
Though they were mine before."

If what has been said appears to relate exclusively to *methods*, it is only because this seemed the most suitable way of presenting the *principles* on which these methods are based. It is evident that here, as indeed in all our work, our efforts must be mainly directed toward educating the mental and, indeed, the physical vision of our pupils. To their opening powers are presented an endless variety of objects of perception and subjects of thought. Their first and most urgent need is a wise guidance to accurate habits of observation, and clear and concise methods of relating the results of those observations. What makes Thoreau and Burroughs and our own John Muir so entirely delightful? Is it not that they behold in every flower and tree as many visions as ever William Blake the painter-poet saw? and hear among the branches as many whisperings as ever breathed in the ears of the Maid of Orleans? Pupils need also variety of method lest they become weary of their task—constant and diligent practice. I do not hesitate to say, that to teach English composition in any true sense requires more labor than is demanded by any other branch. The processes of mathematics and the facts of natural science are taught with comparative ease. But in composition the constant criticism of oral work and the unending revision of written exercises call for a vast amount of labor and watchfulness. The blackboard is an invaluable aid, and pupils may be trained to do much good and useful work in correcting each other's efforts; but after all has been accomplished that is possible in these ways, there still remains so much to be done that I confess I have never seen any satisfactory way through it. I feel so strongly the fact that every unnoticed error helps to perpetuate a bad habit, that I cannot bear to let a line go unrevised; but in a large class with daily work such criticism is manifestly impossible, and we must trust largely to the desire for improvement with which we may inspire our pupils. If they learn to love their work, they will be ever on the alert, and the blackboard and criti-

cism of classmates will successfully supplement the personal supervision of the teacher.

With the most diligent care we shall find ourselves often disappointed in results. Correct and elegant speech is not entirely the fruit of drill and study: it is in no small degree a native or hereditary gift. Herbert Spencer says: "A clear head, a quick imagination, and a sensitive ear will go far toward making rhetorical precepts needless; and where there exists any mental idiosyncracy, where there is a deficient verbal memory, or an inadequate sense of logical dependence, or but little perception of order, or a lack of constructive ingenuity, no amount of instruction will remedy the defect." Fluency and propriety of language are yet much more a habit formed as the consequence of home surroundings and social relations. If these be unfavorable, they will always be a bar to progress, until happily the pupil shall become wise enough to value rightly the divine gift of speech, and put forth strenuous efforts in its cultivation. The author just quoted says: "The endeavor to conform to laws may tell, though slowly. And if in no other way, yet as facilitating revision, a knowledge of the thing to be achieved, a clear idea of what constitutes a beauty and what a blemish, cannot fail to be of service."

But despite all the difficulties in the way, where can we find a study which offers richer rewards of toil? If there be one man who more than another can sway the emotions and mold the will of his fellows, it is the silver-tongued orator, the stream of whose eloquence, freighted with noble thoughts, flows forth a full, deep, resistless current, sweeping away the barriers of passion and prejudice, and marking the channel of all lofty endeavor and progress. If there be one who more than another wields an influence far reaching and diffusive, it is he whose wise and fitly chosen words on the printed page become the heritage of the ages: living when the most brilliant achievements on other fields have been forgotten, to prove in a perennial youth how much "the pen is mightier than the sword."

KATE B. FISHER.

Oakland High School.

PROF. G. STANLEY HALL of Harvard, in speaking before a recent convention of teachers at New Bedford, criticised with much force some characteristics of American educational methods. Our mode of training children, he said, was entirely intellectual; whereas the intellectual element in our children did not need stimulus, but repression. The very bane of American childhood is a tendency to precocity. Our children are too bright naturally. They should not be pushed forward, but held back. We should give attention, however, to their moral and physical training, two departments in which we are greatly derelict to duty. More culture of the body and the morals, and less hot-bed cultivation of the mind, would result in giving us a more agreeable company of children to live with, and another generation of better men and women than those now stepping into maturity about us. Too much pressure is the peril of all our schools—and our homes, too, we might say—as at present conducted.

A HYMN FOR THE CONQUERED.

I SING the hymn of the conquered, who fell in the battle of life—
 The hymn of the wounded, the beaten, who died overwhelmed in the strife;
 Not the jubilant song of the victors, for whom the resounding acclaim
 Of nations is lifted in chorus, whose brows wear the chaplet of fame,
 But the hymn of the low and the humble, the weary, the broken in heart,
 Who strove and who failed acting bravely a silent and desperate part;
 Whose youth bore no flower on its branches, whose hopes burned in ashes away,
 From whose hands slipped the prize they had grasped at—who stood at the dying of
 day
 With the work of their life all around them, unpitied, unheeded, alone,
 With death swooping down o'er their failure, and all but their faith overthrown.

While the voice of the world shouts its chorus, its pean for those who have won—
 While the trumpet is sounding triumphant, and high to the breeze and the sun
 Gay banners are waving, hands clapping, and hurrying feet
 Thronging after the laurel-crowned victors—I stand on the field of defeat
 In the shadow, 'mongst those who are fallen and wounded and dying, and there
 Chant a requiem low, place my hand on their pain-knotted brows, breathe a prayer;
 Hold the hand that is helpless, and whisper, “They only the victory win
 Who have fought the good fight, and have vanquished the demon that tempts us
 within;
 Who have held to their faith unseduced by the prize that the world holds on high;
 Who have dared for a high cause to suffer, resist, fight—if need be, to die.”

Speak, History; who are life's victors? Unroll thy long annals and say—
 Are they those whom the world called the victors, who won the success of the day?
 The martyrs, or Nero? The Spartans who fell at Thermopylae's tryst,
 Or the Persians and Xerxes? His judges, or Socrates? Pilate, or Christ?

W. W. S., in *Blackwood's Magazine*.

A HOODLUM.

CHAPTER III.—THE WORLD AROUND HIM.

HERE are thousands of people who see not and hear not, simply because those around them are blind and deaf. It is the old story of “blind leading the blind”; and though the necessity of self-preservation sharpens our senses to a certain degree of skill, we content ourselves in the beaten tracks made by the footsteps of others.

But Carl was neither blind nor hard of hearing when the voice of Nature called him to admire her charms; and he was anxious that Donald, too, should appreciate her beauties. From animals, plants, and rocks they sought information, and life became filled with delights. The rocks became their neighbors, the trees grew to be companions, and the shy animals were most delightful acquaintances. All were their friends. The sages gave them honey; the manzanita, her berries and her wood; the wild raspberry, her fruit; the quail, the rabbit, and the deer supplied them with meat.

The antlered buck, the timid doe, and the spotted fawn led them many a wild chase over the mountains, across deep cañons, and through the thick chapparal brush. The boy became wise in tracks and signs, in the noises of the woods, and the odors that filled the air. The wild-cat, the mountain lion, and the grizzly bear but gave added excitement to their mountain trips; and with the consciousness of power came a certain fearlessness of danger.

Cinnabar and quartz, sandstone and slate, chalk and granite, were gathered and named. With a pocket microscope the boy scanned the structure of each rock, while he listened to the marvelous story of their growth.

The rounded gravel told its tale of a life in a rapid stream, the scars upon the rocks were present witnesses of ancient glaciers, while the jagged peaks were silent historians of mighty pressures and enormous upheavals. The streams had their story to tell of erosion and deposit, a story continued by the valleys below with their fertile soil gathered in yearly tribute from the mountains. The coast with its waves and tides, its frowning capes, and its sandy beach, its beautiful mollusks and curious crustaceans, the simpler forms of life, such as the jelly-fish and the sea-anemone—all had their charms and their lessons for boy and for man.

Many an hour was profitably spent on the top of some mountain peak, with field glass in hand, studying the geography of the country from Nature's own book (a text-book, by the way, not yet adopted by many of our county boards of education).

Mountains and valleys, capes and bays, rivers and islands, were not mere marks upon the map, but realities that needed no formal definitions committed to memory, as an abstraction to impress what they were upon the mind of the child. By simple methods of measurement, Carl showed the lad the height of the various peaks and their distances from Camp Comfort. The child was led to notice how the ranges gradually increased in height as they went back from the Rincon Hills to the Santa Inez, and thence to the San Rafael back to the lofty Alamo Mountains, overtopping the nearer Mt. Pinos by many hundred feet. The ranges grew rougher and bolder as they increased in height; and though watered by summer rains, they looked drier and more naked.

It was quite noticeable, too, how the character of the vegetation changed as one went higher up the mountains; and with a change in the plants, there was a change in the smaller kinds of animals.

Even man himself varies in looks and character according to the height at which he lives. The influence of climate upon character has not been given sufficient attention. Any surrounding which so alters the individual man during a few years' residence, must have a great effect upon a tribe who live under its influence for many generations.

It is strange, too, how much greater attachment the mountaineers feel for their rough mountain home than the dwellers on lower lands feel for their more productive places. Carl loved his mountain home, and Donald grew to love it too. Compared with Camp Comfort the city looked dusty and noisy; the valleys hot and dry. All of their interests centered in Camp Comfort. The boy's chickens, his dog, and his part of the calf were bonds of no small

power to tie his affections to the only spot he had ever known as home. He felt a deep interest, too, in Carl's possessions. *Our* bees were the best Italians in the county; *our* cow gave the sweetest, richest milk; and *our* garden raised more good things than any other spot in the known world.

Possession should give an increased charm to an article, and those people who value only those things which they have not or cannot get are ever restless and unhappy.

Far wiser is it to magnify the virtues of your wife or the abilities of your boy, than to see greater charms in the wife or child of another; and though certain kinds of contentment take away the desire for progress, no lasting advance is made which does not in some way contribute to a greater comfort.

Children should be taught to strive diligently for the good things within their reach, but not to sigh after the unattainable.

Carl taught Donald that observation and study were the great keys that could unlock the treasures of this world.

"Look carefully at a thing, study it, think about it," he would say; "then what there is in it to know shall be yours."

Even chopping wood had its charms. Choice pieces of wood were to be saved for cabinet-work, the age of the tree was to be guessed at from the rings, the life of the tree and its manner of growth were of interest to the boy; and skill in knowing at what angle to strike his ax across the wood so as to cut the most easily was a pleasant study. At first, when a stick, chopped off with a sudden blow, flew up and struck the awkward chopper upon the head, the boy would curse the stick; but when he saw that such results came from his own unskillfulness, he was slower to blaine and more anxious to improve.

The kind of personification which many boys and men give to inanimate objects is often amusing. When people get angry, they kick an offending stone, trample upon a troublesome vine with violent stamping, storm at a hat blown off by the wind, break a stick that they can't whittle into the right shape, and behave like the unreasonable animals which they are.

While Carl ridiculed this kind of personification when he saw Donald venting his anger upon lifeless objects; while he reproved him sternly when Donald treated an animal unkindly; yet he encouraged that sort of a fancy which gives to objects a sort of poetic life and character. Old-time fables and charming child-poems invested the animals, the plants, and even the lifeless stones and brooks with new charms. A jack-rabbit became associated with many stories, such as "The Tortoise and the Hare," and the race between the Hedgehog and the Hare. The fables of Esop, the stories of Uncle Remus, Grimm's Fairy Tales, portions of Hiawatha, and many other poems, peopled the mountains with charming neighbors. Not that the boy was taught to believe in these creations of fancy, but it became so easy and so delightful to imagine the stories true, and many a mimic battle was fought with the flowery heads of the sword-arme agave.

The fight of St. George with the Dragon was re-enacted one day, when a luckless badger was headed off from his hole; and when after repeated blows he forced his assailant to retreat, and then backed ingloriously down his hole, it took a whole half-day to storm and capture that fortress with pick and spade.

Chopping down an old oak tree caused the death of many an imaginary robber, and though Carl tried to discourage the love of fighting which seems to be inborn, the battles were always fought in good causes and against evil people—to destroy robbers and drive off oppressors.

Doing mimic deeds of kindness and defending imaginary rights is no mean training for those nobler qualities which are mostly the result of a proper education of inherited tendencies.

In naming plants and animals, Carl was careful to give Donald the scientific name as well as the common name, if it had one; for it is not names which are hard for boys to remember, but abstractions. So long as the thing itself is clearly known, it matters little whether the name be long or short. Such names as "red wood" and "big trees" are more easy to remember than their scientific names, because the common names are words which are already familiar, and they are descriptive of the things named; but the greater number of plants and smaller animals either have no common name or are called by names which convey a wrong idea. To call a beetle a bug, or a larva a worm, can serve no good purpose, and confuses in the mind of the child two distinct kinds of animals. The ability to give big names to all the common things around us may not make a naturalist; but a naturalist one cannot be if he cannot differentiate the various families, genera, and species; and this he cannot well do unless he names them.

But Carl used their names only as a sort of nucleus around which to build up a knowledge of their life and growth, what they feed upon, and how they develop.

Sex and reproduction received the careful attention and plain treatment that its importance deserves. Obscenity and impurity of thought are due to a want of knowledge; and it is only a vile intention which makes a word, a look, or an act obscene. Every deed, nay, every thought, of the parent has its effect upon the offspring, and in a lesser degree upon everybody and everything that the person comes in contact with. We are truly immortal, for every action of ours leaves its imprint upon all succeeding generations. Our tread moves the universe, and we live forever, whether we will or no.

Carl was full of noble thoughts, and the boy living in this atmosphere of a higher life became lifted far up above his former place. Sometimes he would wake up at night dreaming that he was in the streets of San Francisco. Then, as the present reasserted itself, he would reach over and take Carl's hand, with a sigh of relief, and a sense that somehow he was saved from great peril.

"Isn't it a long, long time since you took me from the city?" he once inquired.

"Not very long ago. Only three months," Carl told him.

"It seems like half of my life," said the boy. "I don't believe I should know the boys if I went back now. Do you think I would?"

"Yes; but they might not know you," said Carl, smiling into the eager face.

"No; I guess I don't look anything like I used to. I have better clothes; and I don't swear only once in a great while, and then not out loud; and I can lift twice as much as I used to."

"And brag just about as much."

"Am I not a better boy than I used to be?" inquired Donald, throwing his arms lovingly around Carl's neck.

"Yes; a little better. But you have so much more chance to be better here. I am willing to give you some of the credit for your improvement; but when a boy has a real good chance, we may expect more from him than if he is where he cannot learn good from evil."

"How do we know when a thing is good?"

"By the effect it has upon us. We call a rain *good* when our crops need it, and *bad* when it makes a flood. A certain amount of fruit may do us good; a little more may be bad for us. An action may hurt another, and so be bad, even if we do not so mean it," replied Carl.

"But can a person always keep from harming other people?"

"No; everything which helps us may hurt some one else a little, indirectly. Work that I do not get paid for, another might have done and received the benefit. But if the help to some one is greater than the hurt to others, then we may call that *good*."

"When I grow up," said Donald, "I am going to hurt others less than I help them, and then I shall be good."

"There is no need to wait until you grow up," replied Carl. "All can help, whether they are little or big. If a boy only does his part of the work, that is as much for him as a man's part is for a man. Even a little baby may be a great aid to some one, by giving that one an object to work for and to love.

MECHANICAL PEDAGOGY.*

THE spirit of the age runs wonderfully to mechanics, and there seems to be no limit to the wonders that can be produced by combinations of the six mechanical powers. It may be possible that in the near future some inventive genius may evolve from his "inner consciousness" some mechanical contrivance, which by merely winding it up and setting it a-going every morning, will run through with the daily routine of calling the roll, hearing recitations, assigning lessons, administering reproof, inflicting punishment, and dismissing school. That will lift from our weary shoulders the labor, the duty, and the responsibility of educating the youth of the land. If it were not for the fear of being thought satirical, I might intimate that we have already some of these automatic pedagogues in full operation in the schools of the country.

No better portraiture of the mechanical teacher can be given than that drawn by Dickens in his characterization of young Bradley Headstone, the school-master. "He had acquired mechanically a great store of teacher's knowledge. He could do mental arithmetic mechanically, sing at sight mechanically, blow various wind-instruments mechanically, even play the great

* A portion of an address delivered before the State Teachers' Association, Dec. 29, 1881.

organ church mechanically. From his childhood up his mind had been a place for mechanical stowage. The arrangement of his wholesale warehouse so that it might always be ready to meet the demands of retail dealers—history here, geography there, astronomy to the right, political economy to the left, natural history, the physical science, figures, the lower mathematics, and what not, all in their several places. This care had imparted to his countenance a look of care. There was a kind of settled trouble in his face. He always seemed to be uneasy lest anything should be missing from his mental warehouse, and continually to be taking an account of stock to assure himself that it was all there."

Long ago Bacon said, "Knowledge is power." To Bacon it was power; but to the hundreds of human poll-parrots who have been shrieking this phrase into the world's ears since Bacon's time, it is but sound, signifying nothing. From this lean and time-wrinkled aphorism our profession from time immemorial has been vainly trying to draw nutriment to feed the hungry little minds that look to it for their mental pabulum. From every school-house in the land, shrieked out in the shrillest treble, or thundered forth in the deepest base, comes this one refrain—"Knowledge is power," "Knowledge is power." "What raised Franklin from the humble station of a printer's boy to the first honors of his country? Knowledge." "What took Sherman from his shoe-maker's bench, gave him a seat in Congress, and there made his voice to be heard among the wisest and best of his compeers? Knowledge." "What raised Simpsom from his weaver's loom to a place among the first of mathematicians, and Herschel from being a poor fifer's boy to a station among the first of astronomers? Knowledge." "Knowledge is power." "It is the philosopher's stone—the true secret that turns everything it touches into gold." "It is the scepter that gives us our dominion over nature, the key that unlocks the storehouse of creation, and opens to us the treasures of the universe."

Where is the weary pedagogue that has not drawn inspiration from the pipings and the dronings, the shriekings and the drawlings, of this beautiful extract, through the weary lengths of a recitation in reading; and who for the live-long day thereafter has turned the crank of his knowledge-stuffing machine with a renewed vigor, and has crammed bigger facts and more indigestible principles into the poor little brains around him; and has done it, too, with the most solemn assurance to himself of duty performed, and with the most sincere conviction that he was imparting knowledge? Now do not imagine from all this that I am trying to deprecate knowledge and glorify ignorance. For me even to attempt to do so would be as wicked as it would be silly. I value knowledge as highly as any one can. In the language of Shakspere, I believe that

" Ignorance is the curse of God;
Knowledge the wings wherewith we fly to heaven."

But what I am combating is the idea by far too prevalent among teachers, and for the matter of that in the world too, that the mere knowing of many facts and principles and opinions is of itself a thing of inestimable value, and that the

acquisition of these is the chief end of a scholastic education. Knowledge itself is not power. It is only the use we make of the knowledge acquired that gives us power, influence, or usefulness. Money is a good thing to have, and is, I admit, sometimes seemingly all powerful; but money hoarded up in the coffers of the miser does not really enrich him, nor does it give him influence or power. Knowledge of itself is effete, inert, dead; it is only when it comes in contact with the vivifying, energizing, vitalizing faculties of the mind that it is transfigured into power.

The most useful and the most influential men in the world are not those who own the largest mental warehouses of facts, but those who assimilate and convert the greatest amount of information into thought.

It is just possible to know too much to be of any practical use in this very practical world, paradoxical as it may seem. It is possible to have the vital powers of the mind so hampered and obstructed by a *debris* of facts, and so overloaded by a burden of opinions that they cannot act. It is possible to have information without being informed, and to have thoughts without being endowed with the power of thinking. In such minds the vital powers are benumbed, the mechanical alone act. The receptive powers have been unnaturally quickened, and with every deepening layer of fact and opinion the necessity for originating thought has been lessened. The utilizing of knowledge has been subordinated to its acquisition. With the proper adjustment and requisite motory power it is possible for such intellects to grind out little stents of poetry, philosophy, theology, and statesmanship; but ever above the jingle of their rhymes, deeper than the resonance of their periods, and louder than the thunders of their oratory, sounds the rattling and the clattering of the cogs of their memory-machines.

If knowledge is power, why are not those incarnate encyclopedias that we sometimes meet with, who have crammed whole libraries of useful knowledge between the covers of their brains—why are they not mental Herculeses, instead of what they pass for and what they really are in this practical world—nobodies?

I had a classmate while in college who was a living illustration of the falsity of the idea that knowledge, or rather the mere knowing of many things, is power. He was a very prodigy of learning. I verily believe that he could have given you from memory the roots, suffixes, and prefixes, the dialectic, emphatic, and euphonic changes, of half the verbs in the Greek Lexicon. There was scarcely anything in the whole circle of science that he had not read something of. He read Hebrew and Sanscrit for diversion, and unraveled the knottiest problems of differential and integral calculus for amusement. There seemed to be nothing “in the heavens above, on the earth beneath, or in the waters under the earth” that he did not know something about. He was a walking embodiment of knowledge, but a living personification of incapability. From the vast storehouses of his memory he could have compiled an encyclopedia; yet he failed utterly in his every attempt to teach a district school. With as extensive a knowledge of theology as Beecher or Spurgeon, he is to-day eking out existence upon a meager salary in an obscure coun-

try parish in the wilds of Michigan. He seemed to be utterly unable to find any solvent for the conglomerate of facts in the crucible of his brain, and the alembic of his mind distilled no thought; although one of the best of fellows, he had no standing in his class. His opinions outside of Greek and Latin verbs or mathematical problems were worthless and impracticable. Yet if knowledge or mere knowing is power, he should have been the most powerful of his fellows. If mere learning could make the perfect man, poor H. would be the Apollo Belvidere of the nineteenth century. Neither knowledge nor learning alone will make the useful man or woman—indeed, these of themselves, as I have shown in the case just cited, are worthless.

It is the abilities called forth, the faculties strengthened, the patient and industrious habits formed, the powers of thought awakened, the faculty of correct judgment fortified, the quickness to perceive, and the readiness to apply what we get in our pursuit of knowledge that gives to what we learn its value use, or power. Knowledge without these, no matter how extensive it may be, is mere dead matter.

Why is it that the bright boys of our common schools, the medalists and the valedictorians of our colleges, so rarely illuminate the world with the scintillations of their genius? Why is it that so many of our brilliant scholars, when they leave our scholastic halls and come in contact with the actualities of life, sink to nobodies? Why is it that so many of the valiant recruits that we yearly send out from our seminaries of learning, armed with panoplies of book knowledge, to engage in that ever-recurring battle of life—the struggle for existence—come out of the contest, not like that oft-quoted Spartan youth, “with your shield or on it,” but without shield or buckler? And, alas, but too often wounded where we had thought them most invulnerable! To these queries, this seems to me to be the answer: These school-room geniuses have obtained a scholastic education without obtaining what should be the aim and end of such an education to give, namely, the ability to think their own thoughts, the readiness to apply the knowledge obtained, and the patient, untiring habit of labor which works its way connectedly, but unremittingly, however slowly it may be, to some definite end. Gifted with minds that absorbed learning as a sponge does water, it required no labor from these geniuses and bright boys to get a lesson. Blessed with a memory that held all they could crowd into it, there was no necessity for them to form an opinion or evolve a thought of their own; for stored away in the vast warehouses of their brains were the ready-made thoughts and opinions of others. Ambitious teachers paraded these bantlings of science before delighted audiences on examination days, and with many inward chucklings of delight listened to their poll-parrottings of the terms of science, and proudly pointed out these favorites to every visitor as the perfected products of their (the teacher's) theories and methods. Flattered parents have but too often stinted and saved from their scanty substance, that they might have the wherewith to give a finished education to their bantling president or embryo congressman. Flattered, favored, and bepraised by both teacher and parent, the youth is fully persuaded that he is a genius, and that the great world awaits his coming to be conquered. But

in his very first contest with this work-a-day world emergencies arise that were not down in his books; problems are given for his solution in which no substitution of *x y z*, or any other letter of the alphabet, will give the value of the unknown quantity. Questions are asked to which no formula of words or figures learned from books will give a satisfactory answer. If the germs of vital thought and action be not smothered by a mountain weight of dead fact and unfertilizing opinion, he may yet have resources within him sufficient that, by throwing off much that he has acquired, he may rise superior to the difficulties which beset him. If not, beaten in every contest, and worsted in every encounter with the adverse fates of life, subjected and dispirited, he will come limping home to you, and forever after become a pensioner on your bounty and an invalid in the hospital of incapables.

Ah! those incapables, those never-do-wells of our social circles! What a dead weight they are upon the world's industries. Too incompetent to live by their brains, too proud and too indolent to live by their hands, they strike a compromise between their dignity and their laziness, and complacently quarter themselves upon their industrious friends or relatives, and with a benignity most benign proceed to devour their entertainers. And how often do these same friends and relatives, to escape this incipient cannibalism, beset and beseech with most impassioned pleadings trustees, boards of education, boards of examination, school superintendents, and so forth, for a position in the public schools for my dear friend A, or B, where he may be able to earn something for himself. He is such a good fellow; but so unfortunate in business. And, "alas, for the *density* of Christian charity"! their pleadings but too often prevail. And this incubus upon the world's activities and his friend's hospitalities is fastened upon the fresh little minds that people the school-rooms.

For every-day wear in this work-a-day world, give me the plucky, plodding mediocre who never stuffs nor crams to win medals and honors, but takes knowledge as a necessity of his being; who wins his honors, when he does win them, in his full manhood, and not in his adolescence; who in the battle of life is firm, steady, brave, and self-reliant; who fights it out upon the line of duty and principle, if it takes him a lifetime to do it; who has no foreign labels tied to his thoughts; who does no commission business in other men's ideas—in a word, who owns himself and his belongings. Byronic geniuses, great or small, who scorn honest work or study, lest it dim the brilliancy of their genius; who part their hair in the middle to preserve the equipoise of their massive brains; who mouth poetry, literature, precept, and principle as the parrot does phrases, are simply nuisances. It is not well to have one in your family, unless your income is large and your patience inexhaustible; and even then it might be as well, if it were not so very wicked, to have him drowned before he was nine days old.

J. M. GUINN, A.M.

Superintendent of Los Angeles Schools.

Opportunity sooner or later comes to all who work and wish.—*Lord Stanley.*

FRACTIONS FOR BEGINNERS.

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ADDITION AND SUBTRACTION.

Addition and subtraction can be performed only on quantities of the same kind, and the actual operations require, furthermore, that the numbers whose sum or difference is sought should be of the same denomination.

It is evident that we cannot, for example, find the sum or difference of $\frac{2}{3}$ of a gallon and $\frac{3}{4}$ of an hour; because the quantities assigned—capacity and time—are different in kind. We *can* add a length which is $\frac{4}{5}$ of a foot to another length which is $\frac{7}{8}$ of a yard, or subtract the former from the latter; for both quantities are of the same kind. But the operations cannot be performed until the quantities are expressed in numbers of the same denomination; as, both in yards or both in feet, etc. Again, one-third and one-fifth of the same unit, as $\frac{1}{3}$ of an acre and $\frac{1}{5}$ of an acre, will not make exactly either two-thirds or two-fifths, the given parts being different in denomination and in value; just as one half dollar and one quarter will not make exactly either two half dollars or two quarters. If, however, we change the half dollar into two quarters, then two quarters and one quarter make three quarters; or, expressed fractionally, $\frac{1}{2} + \frac{1}{4} = \frac{2}{4} + \frac{1}{4} = \frac{3}{4}$.

In like manner, we may change $\frac{1}{3}$ and $\frac{1}{5}$ into fifteenths, the former becoming $\frac{5}{15}$ and the latter $\frac{3}{15}$; and in this form, as the fractional parts (15ths) are of the same value, we easily find their sum to be $\frac{8}{15}$, and their difference to be $\frac{2}{15}$.

To add fractions, then, or to take one fraction from another, we must reduce them to a *common denominator*, so that we may have parts of the same unit value to operate on. As small numbers are more easily handled than large ones, we usually (though not necessarily) take the least common multiple of the given denominators as the common denominator of the equivalent fractions to which the given fractions are reduced.

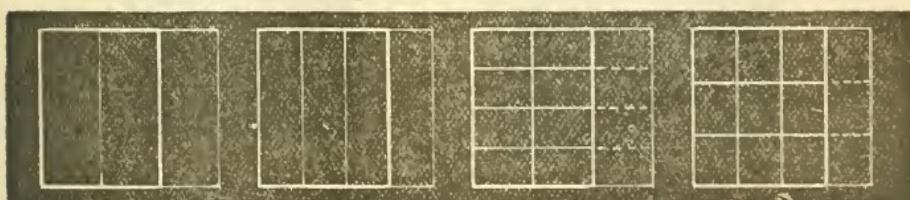
Example (1).—Compare $\frac{2}{3}$ and $\frac{3}{4}$.

$$\frac{2}{3}$$

$$\frac{3}{4}$$

$$\frac{2}{3} = \frac{8}{12}$$

$$\frac{3}{4} = \frac{9}{12}$$



$$\frac{2}{3} = \frac{2 \times 4}{3 \times 4} = \frac{8}{12}$$

$$\frac{3}{4} = \frac{3 \times 3}{4 \times 3} = \frac{9}{12}$$

We may now add them:

$$\frac{2}{3} + \frac{3}{4} = \frac{8}{12} + \frac{9}{12} = \frac{17}{12} = 1\frac{5}{12}.$$

We may also find their difference:

$$\frac{3}{4} - \frac{2}{3} = \frac{9}{12} - \frac{8}{12} = \frac{1}{12}.$$

Example (2).—

$$\frac{5}{6} + \frac{7}{10} + \frac{1}{12} = ?$$

Operation:

$$\frac{5}{6} = \frac{5 \times 10}{6 \times 10} = \underline{\underline{\frac{50}{60}}}$$

$$\frac{7}{10} = \frac{7 \times 6}{10 \times 6} = \underline{\underline{\frac{42}{60}}}$$

$$\frac{1}{12} = \frac{11 \times 5}{12 \times 5} = \underline{\underline{\frac{55}{60}}}$$

$$\text{Sum} = \frac{147}{60} = 2 \frac{27}{60} = 2 \frac{9}{20}.$$

This operation may be conveniently abridged as follows:

$$\frac{5}{6} + \frac{7}{10} + \frac{1}{12} = \frac{50+42+55}{60} = \frac{147}{60} = 2 \frac{9}{20}.$$

Example (3).— $7\frac{4}{9} + 9\frac{5}{6} + 11\frac{3}{4} + 2\frac{7}{12} = ?$

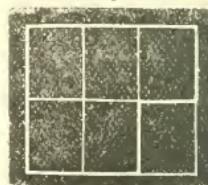
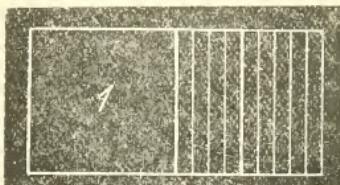
Operation: Adding the whole numbers and the fraction separately, and taking their sum, we have

$$7 + 9 + 11 + 2 + \frac{4}{9} + \frac{5}{6} + \frac{3}{4} + \frac{7}{12} = 29 + \frac{16+20+27+21}{36} = \\ 29 + \frac{84}{36} = 29 + 2\frac{1}{3} = 31\frac{1}{3}, \text{ Ans.}$$

Example (4).— From $1\frac{4}{9}$ take $\frac{5}{6}$.

$$1 + \frac{4}{9}$$

$$\frac{5}{6}$$



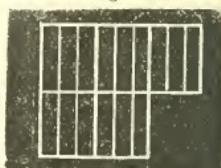
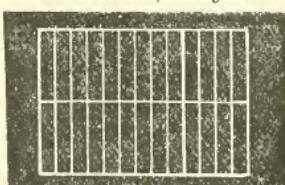
The smallest number which contains the given denominators being 18, we reduce the fractions to eighteenths.

$$\frac{4}{9} = \frac{8}{18}, \text{ and } \frac{5}{6} = \frac{15}{18}.$$

As we cannot subtract the latter from the former, we reduce 1 also to eighteenths.

$$1 + \frac{4}{9}$$

$$\frac{5}{6}$$



$$\frac{18}{18} + \frac{8}{18} = \frac{26}{18};$$

$$\frac{5}{6} = \frac{15}{18}.$$

$$\text{Then, } 1\frac{4}{9} - \frac{5}{6} = 1\frac{8}{18} - \frac{15}{18} = \frac{26}{18} - \frac{15}{18} = \frac{11}{18}, \text{ Ans.}$$

Example (5).— $27\frac{4}{5} - 12\frac{1}{6} = ?$

Operation: From $27\frac{4}{5} = 27\frac{24}{30}$

Take $12\frac{1}{6} = 12\frac{5}{30}$

Rem. = $15\frac{19}{30}$.

$$\begin{array}{l} \text{Example (6).— } 35\frac{3}{10} - 19\frac{1}{2} = ? \\ \text{Operation: } \quad \text{From } 35\frac{3}{10} = 35\frac{18}{60} = 34\frac{8}{60} \\ \qquad \qquad \qquad \text{Take } 19\frac{1}{2} = 19\frac{5}{60} = \underline{\underline{19\frac{5}{60}}} \\ \qquad \qquad \qquad \text{Rem.} = 15\frac{2}{60}. \end{array}$$

NOTE.—The fraction in the subtrahend ($\frac{5}{60}$) being greater than the fraction ($\frac{18}{60}$) in the minuend, we take 1 from the whole number (35) in the minuend; and, as in example 4, change it into fractional parts ($\frac{60}{60}$).

From the foregoing the rules for addition and subtraction of fractions are easily derived.

H. J. BYRNE.

THE C. L. S. C.

This department is under the editorial charge of Mrs. M. H. FIELD, San José, to whom all communications relating thereto must be addressed.

NOTHING does the heart of the secretary more good than to get a report of a new circle organized in some remote region, where public libraries do not exist, where churches and school-houses are few and far between, and even neighbors a scarce article. If in some such place—a mining region may be, or lumber district—some one has the courage and philanthropy to propose and set in motion a Chautauqua Circle, great is the rejoicing at headquarters. In a city or large town a circle often means added cares and burdens to hands already over-full, a coaxing of thoroughly satiated people to try and make room for just a little more; but in the far-off settlement it means a step upward to intellectual pleasures, a rest and recreation to people who are tired of mere toil, a new and charming way of being sociable. Therefore has there been much satisfaction felt lately over reports from a circle of nine members in a little town in Idaho, and another in Bodie—famous hitherto for almost everything but literary coteries. Also from a “triangle” of friends in Corvallis, Oregon, who are joining hands and hearts and heads in the pursuit of knowledge, and under not a few difficulties and discouragements.

Those present at the San Jose monthly meeting for January were treated to a beautiful paraphrase of the famous old tale of the “Return of Ulysses,” by Rev. Clarence Fowler, in which the speaker so caught the true Greek spirit as to quite carry his audience back to Ithaca and mythical ages. Miss Walker followed with an admirable essay upon “Symbolism in Art,” replete with information and charming in style.

We often wish we could drop in upon some of the numerous Pacific Coast circles, and quietly enjoy the intelligent conversation, the bright criticisms, the thoughtful questions and answers, the carefully prepared essays, and all the good things which a well-conducted circle is sure to have in store for its

weekly or fortnightly gatherings. But the next best thing is to have a "chiel amang them takin' notes," and then be favored with a peep at the results. In this way we have lately heard from Gilroy, and now the readers of this department may share our privilege.

GILROY NOTES.

Seven o'clock finds some fourteen ladies and one young man gathered around the fire, awaiting the arrival of their president, Prof. H. B. Norton. They beguile the time by chatting in groups. Some compare their researches in Washington Irving, and tell pleasant legends of the Alhambra. Others listen to what and whom a returned member has seen in "the city." One group is evidently floundering over the pronunciation of artistic names, while from three conjoined heads the reporter catches merry tones, and thinks she heard "plush" and "style." They must be discussing Van Dyck costumes. She takes pleasure in stating that all the remarks overheard were of a "High Renaissance" order entirely worthy of Chautauquans. Better than all, there is a friendly, social atmosphere; hearts as well as heads are present, and no trace of that blighting frost which sometimes makes "brainy" people crusty and disagreeable.

The master of ceremonies arrives, and with him two other gentlemen, who, as a rule in Chautauqua circles, are like the traditional angles' visits. There are pleasant greetings, and the work of the evening begins with an essay from Mrs. F. Johnson, on Angelica Kauffman. We accompany our artist from the time she opened her baby eyes on this sad world at Coire along her path so checkered with success and sorrow. We follow the generous, lovable, unsophisticated Angelica as she receives everything which the world considers prosperity, and suffers all that heart can know of anguish; through her foreign triumphs, back to her sunny home, till she lies down to die, bereft, the golden cords of love, faith, and hope sadly unstrung, but the woman lovely and beloved to the last.

Miss Hattie Lewis follows with a sketch of Rosa Bonheur, noting the woman and her work. The audience sees this genius busy in her cattle-yard or meadows, sketching to the life the noble animals whose perfect delineations have given to Rosa Bonheur a cliff all to herself among the mountain peaks of genius. Her "Horse Fair" may be suggested as a model to agricultural societies. Were our fairs like hers, we could pay our fifty cents free from conscientious scruples.

Mrs. Van Schaick then gave a charming little talk about Van Dyck and Reynolds. Her method seems one just calculated to develop conversational ability—a most desirable acquirement. People who cannot talk in public except in whispers behind a handkerchief might commence on a one minute's prepared conversation, and would soon find that their brains could control their tongues. Mrs. Van Schaick told us of Van Dyck's early life, his success in England, and his unloving marriage. We wondered why there must always be a worm in the bud of prosperity, and whether geniuses like Van Dyck were excusable for drowning trouble in dissipation. Very likely the dissipation preceded the trouble, as with the same class of men nowadays.

The great Sir Joshua Reynolds was a pleasant change. His pure life, conscientious industry, and kind heart made him a man to trust and revere. The hunger and loneliness of his heart could find no solace in intemperance.

Miss De Forrest's book on art was now finished, and the president, after some remarks of a Ruskin-esque flavor, surprised and gratified the circle with some stereopticon views of Egypt. Lights were extinguished, and we all went on a trip up the Nile, beginning, as is proper, with the pyramid of Sakkarah. We progressed pleasantly through the centuries, stopping at Cephren, the Sphynx, Girih, Luxar, Karnack, and Philae, our Dragoman advancing various facts of interest, until the picture of a dead camel, pillowing a modern dead Arab in sight of the pyramids restored us to the present. Lights were restored, the poetry was over, and prose superseded; for our treasurer demanded backshisk to the extent of a dime apiece, and with many thanks to our entertainers, we adjourned, satisfied that at least one evening of our lives had not been misspent.

Gilroy, December, 1881.

EDITORIAL DEPARTMENT.

SHALL THIS BE THE END?

THE enemies of the American public system have at last found the way to its destruction. This is neither more nor less than by starving it to death. It has never been too generously nourished. Legislative bodies and municipal councils have always doled out the money for its support, with the air of Mr. Pecksniff, calling on an admiring and appreciative world to witness his liberality, a little extravagant, perhaps, but pardonable in view of the worthy charity on which bestowed.

It has yet to strike the mental capacity of the average assemblyman or supervisor or newspaper penny-a-liner that what ails the schools is thinness of blood, due to insufficient food. Constant reiteration will eventually, let us trust, hammer it into the dull pates of these people that our present school system *is still too cheap* to be good.

Education goes into every man's home, and leavens there the superstition, the feeble aspirations, the base desires, until we cannot but recognize that, no matter how bad the native material or how superficial the training, the individual and society are better by reason of the process. And yet our nation to-day expends annually \$600,000,000 on a single vice that degrades man below the level of the brute, and begrudges the \$80,000,000 for the only power on earth that can lift him to equality with the angels.

We are out of patience with such opinions and their legitimate outcome, as witnessed in the general reduction of appropriations for carrying on the schools. In San Francisco \$10,000,000 are annually spent on whisky; the school appropriation was cut down from \$900,000 to \$650,000. New York, the modern Sodom, reduces by over \$300,000; and Oakland, the "Athens of the Pacific Coast," as her admirers are fond of naming her, intends this year to cut down the school fund from 28 cents on the \$100 to 16 cents.

Is it not time for intelligent, patriotic men and women—in school and out—to protest? Would it not be well for those who think and those who know something about this matter of education to come to the front and displace the false prophets, the blind leaders of the blind, who are misleading the people and imperiling the best interests of future generations? Does not wisdom cry out that the hour for action has come and almost passed? We believe our day now observes the crucial test of the American idea of popular education. The enemy, the ignorant, the superstitious, the purse-proud, the aristocrat, have discovered the vulnerable point. By making the public schools ragged schools, schools for ragged pupils and ragged teachers, they will carry out *their* idea of the scope of free education.

For the friends of the system, there is no safety in half-way measures. We must fight on the highest, broadest, most logical grounds. We must demand money that will furnish well-built, thoroughly-ventilated, properly-lighted, and comfortably furnished school-houses. No damp, dark, unhealthy hovels, which the murderous selfishness of ward politicians now sets up as slaughter-houses for our innocents!

We must demand teachers adapted by nature and trained by culture and experience—men and women who have chosen this as their life work, who love it, and are conscientious in its performance. To teach, not pretend to teach, it is essential to have such teachers. And to secure such will take more money, not less, than is now thrown, like bones to a dog, for the support of the schools.

We must demand also the conditions essential to the accomplishment of good work—classes containing not more than half as many pupils as now; courses of study carefully and judiciously arranged; and above all, to guide and preserve, to instruct and to elevate, an intelligent and efficient supervision.

Money is the *sine qua non* to produce these essentials; as much money for each child taught as every parent would deem requisite for the training of his own offspring.

NATIONALIZATION.

THREE are now three bills before Congress providing for a National System of Education.

It is certain that the object of these bills is heartily indorsed by the Senators and Representatives from every section of the country. What a stupendous change! How radical a difference twenty years have made in the popular conception of our form of government! Or rather, is there not here another striking illustration of the truth of the theory of evolution?

Appomattox crystallized the American States into a nation. But from 1789—nay, from 1607—the slow process of natural growth, the selection of the best, the survival of the fittest, the test of jarring interests, the ordeal of internecine conflict, the fiery breath of the fiercest war of the century—all these refined and purified, rounded off and adapted the union of the States left us by the fathers, into a homogeneous body, to which each commonwealth is as a member, to be sundered only with danger of death to the great whole.

The educational bills before Congress are the outgrowth of the logic of events. The general favor with which such measures are regarded, South as well as North and West, indicates the power of bayonets in revolutionizing men's ideas.

We may congratulate ourselves that at last the lesson of the age has been learned, and well learned. Not one of these bills may be passed at this session; but it cannot be long before some such measure will prevail. The nation will educate the children of the nation in the national language and the national history. And in turn, such education will react, and more firmly cement the parts which constitute our national unity. A common education in the schools of the nation will make our men and women more patriotic and more self-denying. Such a system will pave the way to that universal brotherhood whose birth is the heritage of our day to the to-morrow of humanity.

PLUCKY PEACHEY.

BELIEVING the decision of the Supreme Court in the case of Thomas G. Peachey, school superintendent of Calaveras, *v.* The Board of Supervisors, who wanted to cut down his salary, not uninteresting to readers of the JOURNAL, if indeed the bread and butter of some one or more county superintendents may not be affected by the same questions here considered, we present a brief statement of the points relied upon in Mr. Peachey's behalf, kindly handed us by Judge Reed of San Andreas, his attorney.

Petitioner was elected, and took office January 1st, 1880, and claimed his salary was \$740 per annum, and his reasonable traveling expenses as the minimum amount prescribed by sec. 1552 of the Political Code. The board of supervisors on March 1st, 1880, refused to allow more than \$500 per annum, including traveling expenses, under a statute approved March 9th, 1878, to take effect March 1st, 1880.

The argument made by petitioner was, that this act, if not void under the Constitution of 1863, or repealed by implication through laws enacted by the Legislature of 1880 before its intended operation, was inhibited and deprived of all vitality by the adoption of the Constitution of 1879, which provided that all special laws are hereby repealed when a general law can be made applicable. The Court in Department No. Two has decided in Mr. Peachey's favor, and at their last meeting the board of supervisors, kindly concluding that neither, themselves, their District Attorney, Superior Judge, or the Attorney-General had been capable of correctly expounding the doctrines of our new Constitution, to which opinion they were no doubt impelled by news of the views held by the Supreme Court, resolved to and did make a virtue of necessity, and order their faithful and efficient superintendent's salary for over a year and a half's work, without waiting to be served formally with the mandate compelling such action.

It remains to be seen what Mr. Peachy will do to obtain compensation for his long wait, as well as his necessary expenses of costs and attorney's fees in getting that to which he was no doubt fully entitled.

Here follows the record of his attorney's brief, and the text of the decision of the Court. They will be found interesting, and perhaps of value.

"We consider there is no argument applicable to this case in the proposition adduced by the Hon. Attorney-General, that the constitutional provisions inhibiting special legislation only operated prospectively, and were but a limitation upon the enactment of laws after its adoption.

"The statute of March 9th, 1878, by its own terms, was to take effect and be in force on and after the first Monday of March, 1880. (Stats. 1877-78, p. 204.)

"Prior to which, on the adoption of the Constitution of 1879, the general provisions of the Political Code requiring defendant to fix the salary of the school superintendent were in force. Hence the argument, that 'the act was passed and became the law—the declared will of the Legislature—before the adoption of the Constitution,' is more specious than sound.

"The intention of the new Constitution was to prevent special legislation; and this intention operated as well to abrogate any special law not yet in force as to inhibit future special enactment. (*Strong v. Daniel*, 5 Ind. 348.)

"The authors of this instrument intended to prevent special legislation; and when this intention has been ascertained, the Court should so construe the rules of its adoption as to give it effect. (*Bourland v. Hildreth*, 23 Cal. 163.)

"And it is immaterial whether such legislation was the subsequent expression of legislative will or that of former Legislatures, but not in force; either were inhibited. No retroactive effect of the Constitution was necessary to abrogate the act in question. Under its express language in sec. 1, art. xxii, schedule, 'All laws in force at the adoption of this Constitution not inconsistent therewith shall remain in full force and effect until altered or repealed by the Legislature.'

"The law in force when the Constitution was adopted was and still is the general provisions of the Political Code referred to, and any amendment or repeal thereof must conform to the constitutional requirements, and to hold otherwise would be in effect to sanction just what is expressly forbidden, and would repeal the general law in force by an unconstitutional special act. (*Bourland v. Hildreth*, 23 Cal. 163.)"

DECISION OF THE COURT.—"Application for a writ of mandamus to compel the defendants, Supervisors of the County of Calaveras, to fix relator's salary, and to allow his claim for services rendered by him as Superintendent of Schools in and for the County of Calaveras.

"There is but one question in the case, and that is the following:

"Is sec. 1552 of the Political Code, applicable to the Superintendent of Schools of Calaveras County? If it is, it is conceded that a peremptory writ of mandamus should issue in the case.

"It is claimed, however, that sec. 1552 of the Political Code does not apply to such superintendent, because that section was repealed as to him by a special act of the Legislature approved March 9th, 1878. On that day the Legislature passed an act, fixing the salary of the Superintendent of Public Schools in Calaveras County at five hundred dollars per annum, and it was therein provided that 'this act shall take effect and be in force on and after the first Monday of March, A. D. 1880.'

"The new Constitution went into effect on the 1st day of January, 1880; and by sec. 1, art. xxii., it provided that 'all laws in force at the adoption of this Constitution not inconsistent therewith shall remain in full force and effect until altered or repealed by the Legislature,' etc.

"The special act above referred to was not, according to its terms, to go into effect until the first Monday of March, 1880; but sec. 1552 of the Political Code was in full force and effect on the 1st day of January, 1880, and the act of March 9th, 1878, never went into effect. It follows, therefore, that it was that section of the statute, and not the special act of 1878, that was continued in full force and effect by sec. 1, art. xxii, of the Constitution.

"It was, therefore, the duty of the Board of Supervisors of Calaveras County to 'estimate and allow' the relator's salary.

"Let a peremptory writ of mandamus issue, as prayed for."

UNHEARD-OF ECONOMY.

UNDER the above heading the San Jose *Mercury* gives credit richly earned to the trustees of the State Normal School. The article is self-explanatory.

"The Legislature appropriated \$100,000 to rebuild the Normal School building destroyed by fire. This, with the insurance on the former building, \$50,000, was deemed sufficient for the work. But what public building was ever before erected on the globe, the cost of which was brought within the first estimates? The circumstance is worth embalming in history, that the cost of our Normal School came within the appropriation, and the trustees have a margin of \$1,063 over and above the amount required, which sum they recover into the treasury, as will be seen by the following correspondence:

STATE OF CALIFORNIA, TREASURY DEPARTMENT,
SACRAMENTO, February 16th, 1882. }

T. Ellard Beans, Esq., Treasurer, San Jose:

DEAR SIR—Your favor of 14th inst., with check for \$1,063.05 inclosed, duly received. Herewith I hand you Controller's discharge, No. 130, for above amount, which will suffice for receipt you desired.

Yours respectfully,

JOHN WEIL, State Treasurer.
Per FRANK T. JOHNSON, Deputy.

CONTROLLER'S OFFICE,
SACRAMENTO, Cal., February 16th, 1882. }

[No. 130.]

This is to certify that the Trustees of the State Normal School have paid the Treasurer of the State the sum of one thousand sixty-three and five-hundredths dollars, credited as follows: "To the General Fund, \$1,063.05"; being the amount of said fund received by them for the erection of State Normal School building, remaining unused and returned herewith to the State Treasury, as per report of this date on file here, and that they are hereby discharged from all liabilities as to the same.

D. M. KENFIELD, Controller of State.

[\$1,063.05.]

ENTERPRISING AND BENEFICIAL.

THE Dixon Crucible Co. of New York and New Jersey have been distinguished of late years for their general enterprise, and for the high grade of their pencils and other manufactures. From their advertisement in this number of the JOURNAL it will be seen that with the more universal introduction of their pencils they propose to encourage and develop the art taste in our public schools. Their offer to distribute \$275 in prizes for drawings and designs made by common-school pupils is liberal in itself, and calculated to stimulate the taste for drawing among our youth. We trust that there will be active competition in the schools of the Pacific Coast for the premiums offered, not so much for their intrinsic value, but for the improvement certain to be made in the teaching of free-hand and industrial drawing.

A NEW APPARATUS.

ONE of the most useful inventions to aid in the teaching of reading and numbers, described in our advertising pages this month, is Montgomery's Revolving Chart, now manufactured and owned by Messrs. A. L. Bancroft & Co., of this city. The illustration in the advertisement, together with the explanation thereto appended, will give a clear idea of the apparatus, its advantages, and method of working.

We don't believe in machine teachers in the school-room, still less in machines. But we have seen this instrument work, and we can truly say, that in the hands of any teacher—and the more faithful, the more "live," the better—this piece of apparatus will be found simply invaluable.

IN REGARD TO LIBRARY BOOKS.

THE State apportionment of school moneys has just been made, and teachers and trustees will no doubt take the opportunity to add largely to their libraries. In this connection, it may be well to call attention to the advertisements of Messrs. A. L. Bancroft & Co., and to the full catalogues of recent publications issued by Messrs. Payot, Upham & Co., and Cunningham, Curtiss & Welch. The catalogues of the latter firm, from advertising page 33 to 40, embraces the cheap publications of the American Book Exchange. These advertisements and catalogues will well repay reading.

BOOK NOTICES.

IN our April JOURNAL will be published reviews of a large number of new books just received from Harper & Bros., Houghton, Mifflin & Co., J. R. Osgood & Co., J. B. Lippincott & Co., A. S. Barnes & Co., and other prominent Eastern and local publishers.

We defer these notices until April, because at that time district trustees will be fully ready (financially and otherwise) to fill their library shelves. So we propose to make the April issue eminently a *book number*.

OFFICIAL DEPARTMENT.

SUPERINTENDENT FREDERICK M. CAMPBELL, EDITOR.

APPORTIONMENT OF STATE SCHOOL MONEY.—SIR: In compliance with an act of the Legislature, I have the honor to report as follows:

The securities held in trust for the school fund by the State Treasurer consist of bonds of the State of California, amounting to \$1,737,500, together with bonds of different counties of this State, aggregating \$251,900, which are described as follows:

State Capitol Bonds, 1870—seven per cent.....	\$236,000 00
State Capitol Bonds, 1872—seven per cent.....	115,000 00
State Funded Debt Bonds, 1873—six per cent.	1,386,500 00

\$1,737,500 00

Humboldt County Bonds—nine per cent.....	\$25,000 00
Mendocino County Bonds—eight per cent.....	10,000 00
Napa County Bonds—seven per cent.....	60,000 00
Sacramento County Bonds—six per cent.....	26,400 00
San Luis Obispo County Bonds—ten per cent.....	10,000 00
San Luis Obispo County Bonds—eight per cent.....	50,000 00
Santa Barbara County Bonds—ten per cent.....	22,000 00
Solano County Bonds—seven per cent.....	10,000 00
Stanislaus County Bonds—eight per cent.....	9,000 00
Tehama County Bonds—eight per cent.....	11,500 00
Tulare County Bonds—ten per cent	20,000 00
	251,900 00

Total securities held in trust for the School Fund..... \$1,989,400 00

The money in the State treasury belonging to the State school fund, subject to apportionment, is \$1,483,413, as follows:

Balance unapportioned August 18th, 1881.....	\$60 96
Amount received from the following sources since last apportionment :	
From property tax	1,215,408 05
From Poll tax.....	157,311 45
From interest on State school lands.....	42,590 71
From interest on bonds held in trust.....	68,102 83
	251,900 00
Less amount refunded to San Joaquin Co. for an overpayment of interest..	61 00

Total amount subject to apportionment February 18th, 1882..... \$1,483,413 00

Yours respectfully,

D. M. KENFIELD, Controller.

In accordance with the foregoing statement of the Controller, I have this day apportioned the State school money to the several counties as follows:

Total number of census children between five and seventeen years of age entitled to receive school money, 211,237 ; amount per child, \$7.02 ; amount apportioned, \$1,482,883.74.

Counties.	No. Children.	Amount.	Counties.	No. Children.	Amount.
Alameda.....	15,677	\$110,052 54	Sacramento.....	7,208	50,600 16
Alpine.....	97	680 94	San Benito.....	1,578	11,077 56
Amador.....	2,819	19,789 38	San Bernardino.....	2,460	17,269 20
Butte.....	3,916	27,490 32	San Diego.....	1,991	13,976 82
Calaveras.....	2,298	16,131 96	San Francisco.....	55,115	386,907 30
Colusa.....	3,057	21,460 14	San Joaquin.....	5,536	38,862 72
Contra Costa.....	3,462	24,303 24	San Luis Obispo.....	2,795	19,620 90
Del Norte.....	454	3,187 08	San Mateo.....	2,398	16,833 96
El Dorado.....	2,377	16,686 54	Santa Barbara.....	3,073	21,572 46
Fresno.....	2,377	16,686 54	Santa Clara.....	9,053	63,552 06
Humboldt.....	3,951	27,736 02	Santa Cruz.....	3,738	26,240 76
Inyo.....	452	3,173 04	Shasta.....	2,237	15,703 74
Kern.....	1,212	8,508 24	Sierra.....	1,172	8,227 44
Lake.....	1,571	11,028 42	Siskiyou.....	1,860	13,057 20
Lassen.....	885	6,212 70	Solano.....	4,977	34,938 54
Los Angeles.....	10,609	74,475 18	Sonoma.....	7,236	50,796 72
Marin.....	2,188	15,359 76	Stanislaus.....	1,970	13,829 40
Mariposa.....	972	6,823 44	Sutter.....	1,442	10,122 84
Mendocino.....	3,343	23,407 86	Tehama.....	2,346	16,468 92
Merced.....	1,339	9,399 78	Trinity.....	707	4,963 14
Modoc.....	1,117	7,841 34	Tulare.....	3,497	24,548 94
Mono.....	554	3,889 08	Tuolumne.....	1,712	12,018 24
Monterey.....	3,189	22,386 78	Ventura.....	1,493	10,480 86
Napa.....	3,228	22,660 56	Yolo.....	3,089	21,684 78
Nevada.....	5,956	35,493 12	Yuba.....	2,380	16,707 60
Placer.....	2,951	20,716 02			
Plumas.....	1,023	7,181 46	Total.....	211,237	\$1,482,883 74

FRED. M. CAMPBELL,

Superintendent of Public Instruction.

FURNITURE AND THE LIBRARY FUND.—In your letter of the —, you asked for “the meaning of the law in regard to the use of the library fund,” and add that “some of our trustees argue stoutly that the word ‘apparatus’ in sec. 1712 would permit them to use the fund in purchasing desks for the school.” In reply, I would say that no portion of the library fund can be used for any such purpose as the purchase of furniture any more than it can be used for building the school-house. Under the term “apparatus” are included such things as maps, globes, charts, philosophical and chemical apparatus, etc.—distinctively appliances for study.

It is true that “desks are needed in a school-room,” but so also are the floor to put them on, the walls to inclose them, and the roof to cover them, and any interpretation of the law which would include desks in the meaning of the term “apparatus” would with equal propriety include clocks, stoves, and indeed the whole building, and everything in it.

But, fortunately, it is not necessary to argue the question, for the law itself makes a distinction, and that too in the very section which defines the powers and duties of boards of trustees. Sec. 1617 of the Political Code enumerates these powers and duties, and among them is—“Third. To purchase school furniture and apparatus, and such other things as may be necessary for the use of schools” (fuel, etc.). This, it seems to me, plainly makes a distinction which sec. 1712 requires shall be observed in the expenditure of the library fund. And before trustees attempt to include desks, etc., in the term “apparatus,” it would be profitable for them to undertake to show that they are not furniture.

Should trustees draw an order upon the library fund in payment for school furniture of any kind, the law would not justify you in drawing a requisition upon such order.

COUNTY SCHOOL TAX—SUPERVISORS MAY BE COMPELLED TO RAISE THE AMOUNT REPORTED BY THE SUPERINTENDENT.—The attention of county superintendent is called to the following opinion of the Attorney-General. From a number of counties complaint has come that supervisors fail to levy such a rate of county school tax as will raise the amount which the superintendent, in accordance with law, reports to be necessary for the support of schools.

The law is entirely clear and specific as to the duties of supervisors and auditors in the matter; and superintendents, as the officers especially charged with the care of the schools, should see that the interests committed to them do not suffer through the neglect or refusal of either supervisors or auditors to perform their sworn duties.

In addition to the sections named in the Attorney-General’s letter, it may be well to call the attention of officers last above mentioned to sec. 176 of the Political Code.

Hon. F. M. Campbell, State Superintendent of Public Instruction:

DEAR SIR—Your communication requesting my opinion relative to certain matters connected with the levy of school taxes has been duly considered by me, and I beg leave to reply thereto as follows:

By sec. 1817 of the Political Code it is made the duty of each county superintendent to furnish each year to the board of supervisors an estimate in writing of the minimum amount of county school fund required for the ensuing year. The section does not, however, leave to the judgment of the superintendent the determination of this amount, but furnishes him a definite, accurate rule by which from known data he must make the calculation.

When the estimate made by the superintendent is returned to the board of supervisors, that tribunal, by the provisions of sec. 1818 of the Political Code, must levy a county school tax sufficient to raise the minimum amount reported by the superintendent. The section further provides a definite rule by which the board of supervisors must determine the minimum rate of school tax which they must levy.

By sec. 1819 of the Political Code it is further provided that if the board of supervisors fail to levy the tax, then the auditor shall make such levy and add the amount to the assessment roll.

In your communication you desire my opinion—what remedy, if any, exists in case the board of supervisors and also the auditor refuse to levy the tax, or—what in this case is a legal equivalent of such refusal—attempt to so fix the rate that a less amount will be realized than is provided for in the sections of the Political Code above mentioned.

The Legislature, evidently intending that the continuation of our free-school system should not be jeopardized by the giving of necessary authority to local and inferior tribunals, has left to the boards of supervisors but little discretion relative to the amount of school taxes to be levied; but has directed in mandatory terms that the supervisors shall fix the rate within certain prescribed limits, and shall levy the tax. To levy such school tax in conformity with the statute, and in accordance with the estimate furnished by the county superintendent is an official duty which the law specially enjoins upon the board of supervisors; and in the event of refusal or failure to perform such official duty, such board can, in my opinion, be compelled by writ of mandate, at the suit of the county superintendent, or any other person interested, to levy the school tax in the manner and for the amount provided for in the sections of law before referred to.

Trusting that the foregoing is a satisfactory answer to your inquiry, I remain,
Your obedient servant,

A. L. HART, Attorney-General.

APPORTIONING SCHOOL FUNDS.—Extract from a letter received from a county superintendent: "Will you please give your interpretation of subd. 4 of sec. 1858. Our Superior Judge, auditor, and myself all disagree concerning its meaning."

The first three subdivisions are undoubtedly clear, as you confine your inquiry exclusively to the fourth. Assuming, then, that you have (first) ascertained the number of teachers each district is entitled to, and (second) the total number of teachers for the county, and (third) that you have given five hundred dollars to each district for every teacher assigned it, except to those districts having ten and less than twenty census children, to which last you have apportioned only four hundred dollars; you will then (fourth) divide whatever balance of school money there may still remain by the number representing the average daily attendance of the *whole* county during the preceding school year, and multiply the quotient by the average daily attendance of each district during the same year, and the product will be the amount of *pro rata* money to be given to the districts respectively. *All* districts not lapsed under subd. 2nd of sec. 1543 are entitled to share in this *pro rata* apportionment.

Of course all of the foregoing and everything pertaining to apportionment must be with a knowledge and recognition of the provisions of secs. 1859 and 1860.

OATH UPON TEACHERS' REPORTS.—In swearing to the correctness of their reports, teachers may add to the form of oath, as printed upon the report blanks, the words, "to the best of my knowledge and belief." It was intended to have them so printed; but only the principals' reports came from the printers with the correction, or addition, made.

COUNTY CERTIFICATES AND STATE DIPLOMAS.—DEAR SIR: By direction of the State Board of Education, I herewith return the recommendation of — without favorable action, the board holding that the State, city, county, or city and county certificate, which it is required the applicant must hold or have held, must be of *this* State. The first-grade certificate which the lady has held at least one year, as stated in the recommendation, is a Franklin County certificate (State not named). The certificate accompanying the recommendation is of your county, but is only of the second grade.

PREPARING CANDIDATES FOR TEACHERS' CERTIFICATES.—DEAR SIR: Your letter of the — inst. is before me. Concerning the subject of which you write, I so fully expressed my views in the Official Department of the October number of the JOURNAL that nothing remains for me to add, except that I can see no reason for changing the views therein expressed. That article was written with no reference to any particular case, but to be applied generally.

I should be pleased if I could so modify my views as to except your case, for I believe that I fully appreciate your situation and the value of the services which you are rendering to the cause of education; but I cannot do so in justice to the interests involved, nor in justice to yourself, because to advise you to a course different from that indicated in the article referred to would be to suggest that which, if followed, would certainly lead to unpleasant consequences in the future.

SCIENCE RECORD.

THIS RECORD is under the editorial charge of Prof. J. B. MCCHESNEY, to whom all communications in reference thereto must be addressed.

LADY ANNE BLUNT says that the Arabs judge of the wholesomeness of water by the presence or absence of insects in it, as perfectly clear water without animal life is sure to be noxious.

ONE of the latest theories advanced is that apples are more nutritious than potatoes, and in Cornwall, England, workmen say they can work better on the fruit than on the vegetable.

A PIECE of zinc placed on the live coals in a hot stove will, it is said, effectually clean out a stovepipe, the vapors produced carrying off soot by chemical decomposition.

J. GILLINGHAM claims to have discovered that, with a proper instrument, sounds can be conveyed to the mind through any set of nerves in the body, and also that the vibrations of light, by the aid of electricity, may be made to convey the sense of sight in a similar way through the nerves.

AN electric headlight has been successfully used on a locomotive in Australia. It illuminated the track clearly for 500 yards; but the atmosphere there is exceedingly clear.

AT a recent meeting of the Academy of Sciences in Paris a communication was read from a man who announced that he had discovered a mode of inoculating vines as a protection against the attacks of the phylloxera.

EVERY one knows that the very feeblest currents produce audible sounds in the telephone, which is more sensitive than any galvanometer to feeble currents. M. Pellat lately declared that the heat necessary to warm a kilogramme of water one degree would, if converted properly into the energy of electric currents, suffice to produce in a telephone an audible sound for ten thousand years continuously.

To clean marble, mix one-quarter of a pound of soft soap with the same of pounded whiting, one ounce of soda, and a piece of stone-blue the size of a walnut; boil these together for fifteen minutes, and then, while hot, rub it over the marble with a piece of flannel, and leave it on for twenty-four hours; then wash it off with clean water, and polish the marble with a piece of coarse flannel, or, what is better, a piece of an old hat.

IT may not be generally known, says the London *Truth*, that a man wearing dark clothes is more liable to infection from contagious disease than he who wears light-colored garments, because particles which emanate from deceased or decaying bodies are much more rapidly absorbed by dark than by light fabrics. This is easy of proof. Expose a light and dark coat to the fumes of tobacco for five minutes, and it will be found that the dark one smells stronger than the other of tobacco smoke.

MONSTER steam engines seem to be one of the features of the day. The Centennial engine in Machinery Hall, Philadelphia, was considered a monster in size and power. It is rated as 1,500 horse-power. They are now putting up a 2,000 horse-power engine for the Providence Water Works. These are very large for stationary engines; but engines of much larger power have long been in use in ocean steamers. There are now several trans-Atlantic steamers which develop from 4,000 to 5,000 horse-power, but the mail Cunard steamer service will develop 10,000 horse-power.

EDUCATIONAL INTELLIGENCE.

SAN FRANCISCO COUNTY.—At a meeting of the board of education held the first week in February the resignation of Albert Lyser, vice-principal South Cosmopolitan Grammar School, was tendered and accepted. His successor in school is Mr. Jacques London, a faithful and highly competent teacher. The teachers of the school gave Mr. Lyser a farewell lunch party, and the pupils presented him with a handsome arm-chair. Mr. Lyser left active teaching to devote himself more closely to the interests of the JOURNAL, and also to represent the Pacific Mutual Life Insurance Company, by whom he has been appointed Special Agent for California.

San Francisco receives \$41,000 more money from the State school fund than was anticipated. So all fears for a further reduction of teachers' salaries may cease.

At a meeting of the board held February 3rd, on motion of Mr. Bandmann, the rules were suspended, and Dr. J. A. Weidermann and Henry Clarence were elected to fill vacancies in the South Cosmopolitan School. Miss Lizzie Bragg was elected to an eighth-grade class in the Irving School.

Mr. Culver desired to know whether or not it was the intention of the board to enforce the resolution adopted by their predecessors dispensing with all teachers who have married while in the department.

SANTA CRUZ COUNTY.—Miss Lou Archer of San Jose took charge of the school at Live Oak district, on the lower Soquel road, last week.

Carl E. Lindsey of Santa Cruz, formerly a pupil of the State Normal School, left for Darwin, Inyo County, last Tuesday, to take charge of a school in that place.

SANTA CLARA COUNTY.—The reports of principals of the public schools in San Jose for the month of January show an increase of more than a hundred over the attendance at a corresponding period last year, the total attendance being 1,878.

The members of the Woman's Christian Temperance Union of San Jose take pleasure in announcing to those of its citizens who so generously contributed to a six months' support of a free kindergarten, that the services of an accomplished and competent Kindergartener have been secured; that the lady is here, and that the school opened with a few little ones a week ago.

HUMBOLDT COUNTY.—But a few of our schools are at present in session. The Eureka schools opened January 9th with James B. Brown as principal, a position he has held for fourteen years.

The opening of the Arcata schools has been postponed owing to the prevalence of the measles; but they will probably reopen

January 23rd, with W. F. Clyburne as principal, and J. W. Ellis and Mrs. J. B. Casterlin as assistants.

The Rohnerville schools will not open till April. George W. Kellogg has been retained as principal thereof.

The Fair Haven school will close in about six weeks. Mrs. W. F. Clyburne is the efficient teacher in that district.

LOS ANGELES COUNTY.—The number of school children between five and seventeen in Los Angeles City is 3,617.

Mrs. Julia Breed, formerly an assistant teacher in the Anaheim school, is a clerk in the United States Treasury Department, at a salary of \$1,200 a year.

The Los Angeles City Board of Education has raised the salary of Supt. J. M. Guinn from \$1,500 to \$1,800 a year.

El Monte district has just completed a beautiful new school-house, at a cost of \$5,000.

MENDOCINO COUNTY.—Ex-Supt. John C. Ruddock, now principal of the Ukiah schools, where he is doing the same excellent work he formally did as superintendent, sends us a specimen of a "report card" he has devised for his schools. We have not space here to describe it. It shows at a glance the average of scholarship, deportment, and attendance. It is certainly well adapted for the ends designed.

NEWS RECORD.

Foreign and Domestic.

The trial of the assassin of President Garfield began November 14th, 1881, and ended with a satisfactory verdict of guilty January 25th, 1882. The last act but one in the drama has been enacted in the sentence by Judge Cox, that the assassin be hanged on Friday, June 30th.

The Jefferson school-house in Washington, D. C., accommodating 1,600 pupils, and valued at \$135,000, was burned Saturday.

Lieutenant Daneuhower of the *Jeannette* has been called home by Secretary Hunt, and Lieutenants Harber and Scheutze de-

tailed to assist in the search for the missing men. A log-book by Lieutenant DeLong, dated Oct. 1st, 1881, has been found on the west bank of the Lena.

The heaviest snow-storm of the last fifteen years extended over the New England and Middle States during the first week in February.

Thirty-two, alive or dead, are entombed in the Mid-Lothian Coal Mine, Coalfield, Va., by the explosion of fire-damp a few weeks ago.

The present state of the Egyptian question excites much uneasiness both in England and on the continent. The Sultan's

defiant attitude toward England and France excites apprehension that he is prompted by Germany or some other outside power, and that he may complicate the question by assuming absolute control over Egypt in defiance of the French-English protectorate. This difficulty, together with the insurrection against Austria in Herzegovina, against Turkey in Arabia, and the French occupation of Tunis, again threaten a great European war.

There has been another crisis in French politics, resulting in the parliamentary defeat and resignation of Gambetta with his cabinet, and the succession of M. Freycinet.

Some of the Whig landowners of England are deserting Mr. Gladstone, for fear that if his Irish land reform measures succeed, he will soon introduce a bill into Parliament for similar land reforms in England. This is a remarkable fear for the landlords, as it is a very rational hope for the farm tenantry of that country. The reform is sure to come through Mr. Gladstone's administration, or over its buried remains. It is merely a question of time. The farm tenancy laws of England are more oppressive in many serious regards than those of Ireland before the present extremely liberal land act went into effect.

The Emperor of Germany has entered a "rescript" to the ministry, in which he informs them that they are the servants of the Emperor, not representatives of Parliament. He claims for himself and his successors alone the power and constitutional right to direct the policy of the government. While he would not restrict the freedom of elections, he says, "The officers intrusted with the execution of my official acts are bound to support the policy of my government even at the elections," and he expects them to refrain from any participation whatever in any agitation against his government. "These two propositions make up probably the most absolutistic proclamation of policy in Germany since 1848. In England it would be called simply monstrous; it would be equivalent to a *coup d'état*." The "rescript" made a great sensation in Germany, and met with general disapproval.—*School Bulletin*.

Among the notable men who died in February are the following: Dr. Henry W. Bellows, the famous Unitarian pulpit orator, who died in New York on Monday. Dr. Bellows was born in Boston, Mass., June 11th, 1814. He was graduated from Harvard University in 1832, and from the Cambridge Divinity School five years later. He was president of the Sanitary Commission during the War of Secession.

J. W. Draper, M.D., L.L.D., chemist and physiologist, is dead. Born near Liverpool, England, 1811; M.D., University of Penn-

sylvania, 1836; immediately elected professor of chemistry, natural philosophy, and physiology in Hampton-Sydney College, Virginia; author of valuable works in his special line; chiefly known by his "History of the Intellectual Development of Europe," his "History of the American Civil War," and his "Conflict between Science and Religion."

Theophilus Parsons, late professor in Harvard College Law School, died a short time ago in Cambridge. He was a son of the eminent Theophilus Parsons, Chief Justice of Massachusetts. He was born in 1797, in Newburyport, Mass., and graduated from Harvard College in 1815. He studied law, and early in his legal career he became a contributor to legal and literary journals. In 1847 he was appointed Dane Professor of Law at Harvard, and he is well known as the author of many legal treatises.

W. H. Ainsworth, English novelist, is dead, at 77. He was a ready writer, and popular; yet there is no probability that his books will long survive their author.

Cholera has broken out among the pilgrims to the sacred city of Allahaba, East India.

A most disastrous fire occurred in Newspaper Square, New York City, Tuesday, Jan. 31st. The block burned was an irregularly shaped gore, with the building formerly occupied by the *World* on its southeast corner, the *Times* building occupying the entire northern angle of the gore. The *Tribune* office is diagonally across Nassau street from the *Times* office, and the *Sun* office is on the upper corner of the same block with the *Tribune* building.

Among the occupants of the burned building were the *Scientific American*, the *Scotch American Journal*, the *Turf, Field, and Farm*, Thompson's *Bank Note and Commercial Reporter*, and *The Observer*.

England is agitated over the persecutions of the Jews in Russia, and meetings are being held in aid of the movement against persecution. The Lord Mayor of London, in consequence of a requisition signed by the Archbishop of Canterbury, the Bishops of London, Gloucester, Manchester, and Oxford, Cardinal Manning, Prof. Darwin, Matthew Arnold, Samuel Morley, and others, called a public meeting to make a declaration of opinion on the matter. In London the Lord Mayor's fund for the relief of the Jews now amounts to £26,000. Lord Rosebery has subscribed £1,000, and the Rothschilds, £10,000. In New York City also a meeting was held, presided over by Mayor Grace. Edwards Pierrepont read the resolutions of the evening, and ex-Secretary Evarts and the Rev. Dr. John Hall made stirring speeches.

On Monday of last week the panic and unsteadiness of French securities, which has been felt for some time, culminated in the failure of the "Union Générale," a large and well-known banking institution of Paris. The par value of its shares was 300 francs, but only 125 were ever paid in. Its condition was apparently prosperous, and its shares have sold within a few weeks for 3,400 francs. It was a speculative scheme, however, and some of its investments lately have been badly managed and disastrous. The Roman Catholic clergy and aristocracy of France were largely interested in it, and the failure has caused them great losses. The Pope himself is said to have been a heavy loser. The collapse of the Union Générale caused some uneasiness in the American money markets.

Parliament convened on Monday, Feb. 6. The land commissioners are making remarkable reductions in rents, amounting to 45 per cent. in many cases.

While the Northeast is in the midst of the most wintry weather, with deep snows and heavy ice, the South is suffering from floods and winds. Dispatches from Louisiana announce that heavy rains are preparing an almost inevitable inundation of a very large tract. The lakes are higher than for six years. Many plantations are already under water, and the levees are giving way. In New Orleans the wind has done much damage.

Eighty-two points of small-pox infection now disfigure the map of the State Board of Health office in Springfield, Ill. Omaha, Neb., has just had its first case of the dread disease; but the city has been so thoroughly quarantined and vaccinated that little alarm is caused by it. Indiana is to have local health boards to protect her towns. The disease is still raging in many places in the East, the mortality in New York and its suburbs being still very great, in spite of all efforts to check it.

The subjugation of Peru seems to be steadily pressed by the Chilians. On January 2nd an expeditionary force, 5,000 strong, composed of infantry, light artillery, and cavalry, under command of Rear Admiral Lynch, advanced into the valleys beyond the loftiest summits of the Andes. Dispatches from Chilian sources say that it has been entirely successful, having met with no opposition.

The latest reports regarding the *Jeanette* leave little ground for hope that Lieutenant De Long and his party are living.

Russia has signed a treaty with Persia by which she acquires the Akhal-Tekke oasis.

Educational.

A "teacher's diploma" is to be given in future by the University of London, England, which will be equivalent to any other degree conferred by the institution, and for which a special examination of the graduates will be held. Upon the successful candidates at this examination this diploma, signed by the chancellor, and under the University seal, is conferred at the public presentation of degrees. As the examination is designed to test the practicability as well as the information of the candidates, and especially their knowledge of the theory and art of teaching, the diploma will be for the fortunate recipient a certificate of merit of the highest order. This is a long step toward the millenium, when the teacher's profession shall receive the merit that its importance merits.—*The Present Age*.

The Hartford High School building was burned on Tuesday, Jan. 24th. Loss about \$125,000.

Pres. Carter of Williams, during a recent visit in New York and Brooklyn, received nearly \$100,000 in subscriptions from the college *alumni* for two new dormitories for that college.

In imitation of the plan adopted by the London University, the Illinois Wesleyan University at Bloomington, Ill., has had for nearly ten years courses of study open to non-resident students, with non-resident examinations. These courses lead to the degrees of Ph.B., M.A., and Ph.D. Catalogues containing full information will be sent on application to Prof. C. M. Moss.

The salaries of the eighth grade male teachers in Washington have been increased to \$1,000 for the first year, with an annual rise till it reaches \$1,500.

In Burmah there is a sort of National system of monastic education in which are 65,320 pupils. Nearly every Burman boy spends a part of his life at monastery.

The University of Pennsylvania has established fifty free scholarships for pupils of the Philadelphia public schools, in consideration of the city's giving them a lot.

The endowment fund of the Washington and Lee University nearly reaches the sum of \$450,000, mostly coming from people at the North. Its first gift was received in 1796, being a donation of \$50,000 from General Washington.

Dartmouth College has an attendance of 426 students, 234 of this number being in the academic department. The attendance is thirteen less than that of last year.

Separate schools are provided for the colored children of Washington, and the public schools are not yet open to them.

General Notes.

It is interesting to learn from a London paper that the literary people are, of all others, least liable to insanity. Out of 139,143 men and women engaged as authors, editors, journalists, reporters, translators, or in any other literary work, twelve only are returned as lunatics.

The total net decrease of the debt of the United States in 1881 was \$133,690,018. Our debt is now \$1,785,491,717, or about one billion less than in 1865. It is now less than one-half of that of Great Britain, and a little more than one-third that of France.

Enoch Pratt, one of the solid business men of Baltimore, proposes to establish and endow a "free circulating library for the benefit of the whole city," at a cost of over \$1,000,000, provided the city will grant and create an annuity of \$50,000 forever for the support and maintenance of the library and its branches.

The following from an exchange suits our case exactly:

"The director of the United States Mint proposes to turn out some silver coins of a new design. What this office wants is not a better quality of new coins, but a bigger quantity of old ones."

LITERARY NOTES.

The final volume of Mr. Kinglake's History of the Crimean War will be published early in the spring, just eighteen years after the appearance of the first volume.

Mr. J. R. Green's new historical work, *The Making of England*, is to be published early next month by Macmillan & Co., who will also bring out about the same time Prof. Huxley's new volume of essays.

The Educational Weekly of Chicago is dead. In its stead is *The Present Age*. The *Weekly* was owned and edited by J. Fred. Waggoner. The *Age* is owned and edited by the J. Fred. Waggoner Company, with J. M. Gregory president, J. L. Pickard vice-president, and J. Fred. Waggoner secretary and treasurer. The other stockholders are Jas. H. Smart, John Hancock, Louise Allen Gregory, W. P. Jones, Mary A. West, G. S. Albee, and O. V. Tousley. The *Weekly* was a first-class educational periodical, and its successor bids fair to surpass it in every respect. We wish it the greatest success.

"Since the death of Dr. W. D. Henkle, the able and accomplished editor of the *Ohio Educational Monthly* and *Notes and Queries*, the future of those popular periodicals has been a source of much con-

The textile manufacturers of Philadelphia have contributed \$90,000 for the establishment of schools of instruction in the work of manufacture of such fabrics.

Twenty-three students of Princeton College, charged under one indictment with having broken fifteen street lamps, valued at \$7 each, were arraigned before the Mercer County Court of Oyer and Terminer last Friday. All but five of them pleaded guilty. The judge, after a severe lecture, discharged all who plead guilty with a fine of \$20 each, after their counsel had stated that the students had made all the reparation they could, having paid the city \$200. The five students who plead not guilty are to be tried next Thursday.

The French Waldenses contemplate removing to Algiers. The valleys of Freisinieres and Queyras may have served a good purpose in past centuries by offering a retreat from violent persecution to those whom their relentless enemies would not suffer to live in peace in any less hospitable region. But mountain heights, where winter reigns for nearly three-quarters of a year, are no fit abode for men and women and children. In spite of every exertion, the most industrious cannot but see poverty and possible starvation staring them in the face, and preparations are being made accordingly for an exodus to Algiers.

jecture in educational circles. Mrs. Henkle is temporarily filling his place with marked ability; but her desire to be relieved from so burdensome a task has led to the sale of the good-will and subscription books of the establishment to Supt. Samuel Findley. The transfer was made at Salem yesterday, and with the March number the *Monthly* will be issued from Akron—a most appropriate location, since Akron is the birthplace of not only the common school system of Ohio, but also the State Teachers' Association."

Prof. Fisher's admirable article on The Christian Religion, in the February number of the *North American Review*, is a model of clear, dispassionate, and thorough discussion.

Du Chaillu's Land of the Midnight Sun has already reached its 30th edition in England.

Visitors from California will find a welcome at the publishing house of Messrs. Ginn & Heath, Boston, where a free reading-room has been opened for teachers. All the educational periodicals of the country will be found on file there, including *The PACIFIC SCHOOL JOURNAL*.

Charles Reade breaks a silence of several years with a vigorous and striking sketch of Sir Robert Lush, for many years one of the Justices of the

Court of Queen's Bench, and later one of the Lord's Justices of Appeals. Mr. Reade's sketch appears in the current number of *Harper's Weekly*, and is the first of a series of papers which he has engaged to write for that journal.

The *North American Review* for March presents a striking array of articles, every one of which possesses the characteristic of contemporaneous interest. First, we have a contribution from Senator George F. Edmunds on The Conduct of the Guiteau Trial. Ex-Minister Edward F. Noyes communicates the results of his observations of political affairs in France under the title, The Progress of the French Republic. In Trial by Jury, Judge Edward A. Thomas describes the social conditions under which our jury system has its origin, and notes its defects in view of the altered relations of modern life. Mr. John Fiske makes an able and ingenious analysis of that great intellectual movement, the Reformation, educating therefrom the True Lesson of Protestantism.

Among the articles in the March *Popular Science Monthly* are the following: Science and the Woman Question, by Miss M. A. Hardaker; Sir Charles Lyell (with portrait), by Prof. Grant Allen; To Eat and to be Eaten, by Charles Morris; The Sirens of the Sea (illustrated), by W. H. Larrabee; The Machinery of Electric Government, by Prof. Goldwin Smith; Sound and Radiant Heat, by Prof. John Tyndall; Recent Wonders of Electricity (I.), by W. H. Preece, F.R.S.; Entertaining Varieties—The Mountains of the Moon, The Chronicle of Hakim Ben Sheytan, etc.

In the March *Century* the illustrated material is especially noticeable. Mrs. Mary Hallock Foote's third paper on Mexican life is entitled From Morelia to Mexico City on Horseback. It is illustrated in a refined and striking manner by the author, a beautiful cut by Mr. Cole of a Spanish creole being prominent among the engravings. Mrs. Foote sees and describes Mexico as only an artist can. A Ramble in Old Philadelphia (Miss Elizabeth Robins) includes seven picturesque and delicate etchings by Pennell—a style of illustration which in the Whistler, Seymour Haden, and Cape Ann articles has become an agreeable feature in this magazine. Miss Robins's text takes us among the Gypsies, with whom her companion, Mr. Charles G. Leland, talks in the Romany language. Mr. Leland also contributes to the article an original ballad in Romany and in English—To Trinali. Mr. Richard Grant White, in his first paper on Opera in New York, in a readable style and with much interesting anecdote, traces the beginnings of the musical drama in America. Among the subjects of text and portraiture are Malibran, Mrs. Austin, Montressor, Fornasari, Miss Paton, Joseph Wood, Daponte, and the old theaters. The paper has the color of the time of which it treats, and the series promises to be one of permanent value in the annals of music in America. Winter sports are the subject of two illustrated papers in this number: The Black Bear, by Charles C. Ward, an experienced bear-hunter of New Brunswick; and The Danish Skate-Sail, by T. F. Hammar, who gives practical directions for the manufacture and management of this spirited means of locomotion, which will probably be adopted on

American ice. A portrait of Leigh Hunt (engraved by T. Johnson) accompanies a wholesome paper by his friend, Mary Cowden-Clarke, including some unpublished letters of the poet's. Some excellent architectural drawings of the Union League Club Decorations are given, with a short critical paper.

St. Nicholas presents the usual attractive face. We can name only The Snow-Filled Nest (a poem), by Rose Terry Cooke; Hard to Hit, by Ernest Ingersoll; A Question of Color (verses), by Nellie L. Tinkham; A Queer Barber-shop (a picture) by J. G. Francis; The Hoosier School-boy (XV.-XX., illustrated), by Edward Eggleston; Out of Bounds (jingles), by Thomas S. Collier; Men-and-Animal Shows, and How They Are Moved about (illustrated), by William O. Stoddard; The Pretty Puritan (a poem, illustrated) by Celia Thaxter; Donald and Dorothy (XI.-XIV., illustrated), by Mary Mapes Dodge; Recollections of a Drummer-boy (XII., XIII., illustrated), by Harry M. Kieffer; Thin Ice (illustrated), by William O. Stoddard; Reminding the Hen (verses), by Bessie Chandler; Stories of Art and Artists (seventh paper, illustrated), by Clara Erskine Clement.

Lippincott for March shows an improvement in the finish and style of its engravings, together with a high excellence of reading material. Among its articles, notable are On the Gulf Coast (second paper), by Barton D. Jones; Stephen Guthrie (a story, illustrated); The Burning of Columbia, by S. H. M. Byers; A Fair Confederate among the Pines (a story), by Fanny Albert Doughty; Some Curiosities of Superstition; College Eating Clubs, by Henry A. Beers; Demoiselle Daphne (a story), by Mary Mather; Washington on the French Stage, by Theodore Child; The Unwelcome Guest, by Henrietta R. Elliott; Manners, Foreign and Domestic, by G. H. Peirce.

From the chaff of literature which floats around so universally in our modern books and periodicals, it is a relief to turn to the *Atlantic*, which never contains a mediocre or untimely article. Among others, we have for March The Story of the Hoosac Tunnel, by N. H. Egerton; Loki, by Elizabeth Robins; The House of a Merchant Prince (III.-V.), by William H. Bishop; Hurricanes, by N. S. Shaler; An Echo of Passion (VI.-VIII.), by George Parsons Lathrop; Life and the Dream of Life, by John Trowbridge; A Visit to Jerusalem, by Edward E. Hale; At Last, by John Greenleaf Whittier; Our Winter Birds, by Mary Treat; Before the Curfew, 1829-82, by Oliver Wendell Holmes; A Difficulty in Hamlet, by J. P. Quincy; The Political Situation; On a Great Man whose Mind is Clouding, by Edmund C. Stedman; Captain Farquhar, by H. A. Huntington; Campaigns of the Civil War, by S. M. Quincy.

Among others, we notice the following papers in the March *Harper*: Old New York Coffee Houses (illustrated), by John Austin Stevens; A Canadian Pilgrimage (illustrated), by F. H. Taylor; Typical Journeys and Country Life in Mexico (illustrated), by W. H. Bishop; The Mendelssohn Family (with eight portraits), by W. L. Gage; the two serials, Anne and Prudence, and the usual collections of poetry and short stories.

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PROFESSIONAL TRAINING.*

SECOND PAPER.

BY far the most difficult problem that professional schools for teachers have to solve is the problem of school government. Some one has said, "We teach from what we know; we govern from what we are." If this be true—and I am inclined to believe it—but little can be done to aid the student save by making him what he should be; yet this little should be done. It is unfortunate that this is the case; for of ten teachers who fail, or rather, of whom it is said they fail, nine will fail in government where one fails in class teaching. This results from several causes. The effects of good or bad government are almost immediately visible; while the results of good or poor teaching may not appear for years. So I say, "those of whom *it is said* they fail." Many fail, almost utterly fail, in teaching, and depart, leaving no visible sign. I have known a man having but the most limited education, and no special training, yet possessing a fine presence (a most excellent thing withal), and a certain skill in managing, with the ability to look "wiser than ten men who can render a reason," and sense enough to keep his mouth shut upon all difficult questions, who, by the educational clap-trap of picnics and exhibitions, and by the exercise of so much lenity in construing answers to questions as always to promote nearly his entire class, occupied the same position—and it was an exalted one—for years. And with this man, as with Goldsmith's

* Comments on this paper, and its first part in our March JOURNAL, will be found in the Editorial Department.

school-master, "still the wonder grew." But in that school it took years to remedy the ill work of one who was always spoken of as a most excellent teacher. And I have known a man of wise and generous culture, who had art, science, literature, at his command, and who from study and observation had acquired the ability to impart instruction with wonderful clearness, yet lacking the ability to control children well, written down a failure after a term's work. He tried to do and did do honest, faithful work, and taught more and better, too, in one term than the other could teach in a year or a lifetime; and yet he was dismissed as a failure. Verily, I say unto you, "This man shall go to his house justified rather than the other."

People are intolerant of failure in the government of a school. The parent who can do nothing with his own three or four at home—all of the same temperament, and with the same surroundings—will utter loud complaints against the teacher who cannot control perfectly the thirty or forty, coming from nearly a score of different homes, and surrounded with such home influences that to control the children the parents' wills must also be controlled. And I have always noticed that the most intolerant of parents are those who have the least control over their own children.

And yet it is necessary that teachers should acquire the power to manage a school well; and, as I have said, something can be and is done in professional schools to give them this power. But school government has not been, and perhaps never will be, reduced to a science. A theory of government can be given, and many practical directions in regard to carrying it out. The student can be led to study the natures and dispositions of children, to judge of the effects of this or that course of procedure upon the habits and character of the child; and above all, should be strongly cautioned against taking such a course as will destroy the sensibility of the child, and harden him, so that only brute force will move him. And he should be in like manner cautioned against training him into the habit of doing everything for the hope of some immediate reward. In school government the end does not always justify the means, and any course that does not result in making the pupils more manly or more womanly the student should be taught to avoid. Not the least important thing that the professional school should accomplish has already been alluded to—the securing of the power and habit of resolute self-control. One who has acquired this has won half the battle. If, in addition to this, he has learned to work thoughtfully, endeavoring always to reach desirable ends by justifiable means, it is about all that can at present be accomplished.

Passing now from the distinctive professional studies, let us glance at the studies ordinarily pursued, and mark the difference between the knowledge generally given and the knowledge required by the teacher who would be in the highest degree successful. It is mainly a difference between teaching and training. The general student needs only to know a subject; the teacher needs not only to know it, but to be able to use every part of it fully up to his knowledge, if indeed he must not at times reach beyond this by a skillfully directed guess. At all events, he must be a perpetual student: never feeling like Jane Taylor's typical young lady, "that his education is now completed."

In acquiring what he has of any subject, he should have acquired also a taste or more. This taste, if he has the opportunity, he will gratify. If any graduate of a normal school sits down content with what he has already attained, he has imbibed little of the spirit of the school.

In reading, he must not only be a good reader, but he must have a taste for reading, and for reading good literature. Without this, how can he inspire his pupils with a similar taste? He will therefore be a constant, thoughtful reader. He will, as time passes on, become tolerably well acquainted with standard authors and their works, thus growing wiser and stronger day by day. In natural science, as most of the teaching up to and through our grammar schools must of necessity be objective, he will become apt in illustration, ingenious in the construction of simple apparatus, and ready in explaining and illustrating the science of common things. And although he may master but a small part of any one of the sciences, it will be that part which is most intimately connected with the things nearest to him. It is sometimes alleged that our school course unfits pupils for the active duties of life. The true teacher will strive to negative this assertion by making his natural science, his mathematics, and all other studies touch the activities of life whenever this can be done. His knowledge of physiology will be of such a character as to lead him to keep his school-room well ventilated and at a proper temperature, to guard his pupils against things hurtful, and to train them, so far as he may, into healthful habits. In drawing he will be rapid and skillful; and while he does not expect to become an artist, he will be able to illustrate readily whatever he desires to present to his classes.

Goethe has said: "On every hight there lies repose." The teacher should be trained to recognize these restful hights—the points where the class may stop and take a retrospect of the way over which they have journeyed. The teacher must know every winding, and possess the trained eye to point out all the difficulties and the means by which they have been overcome. Is it not plain, then, that his knowledge needs to be far more accurate and full than that of the general student?

The professional teacher will also recognize the fact that in most studies there are points that must be used as master-points for long and systematic drill—points that to the general subject bear the same relation that the scales bear to piano-playing. When once the scales are fully mastered, all music becomes comparatively easy. So if these points are fully occupied, and the child's faculties well disciplined in the processes there required, all the remaining part of the subject will be easily mastered. In his professional study the teacher is trained to know these points, to marshal his forces there, and to conduct all the drill-work from that of the awkward squad to the dress parade. To conduct this drill-work well he must himself be skillful, and skill consists in accuracy and rapidity. To acquire this skill he must devote time and energy to the work, and have patience to await results that come very slowly.

From what has thus far been deduced, it is obvious that even the scholastic training of the prospective teacher must differ from that of other students. Hence normal school courses extend from two to seven years, the time

required to complete the course in some of the normal schools of Switzerland. In our own State the course is three years; but pupils are admitted to the middle or senior classes upon mere scholastic examinations. Those entering these advanced classes, especially the senior class, and spending but one year in the school, are always losers. Not so much that they lack the knowledge, but they lack the power to use their knowledge rapidly and effectively. The specially professional studies can be well given in one year; but until the training in other schools is more efficient, the normal school course cannot be much shortened. It is doubtful if it would not be better in our own State to require all graduates to take the full course, as is now done in some of the Eastern schools. And this, because the professional training presupposes, and must be based upon an amount of previous mental discipline, acquired knowledge, and ready power that few general pupils, even from our best schools, possess.

If it be asked, is all this work as it has been portrayed, done in our normal schools? I can only answer: It is all attempted. How far we fall short of the ideal no one more fully recognizes than the normal teacher. Yet we are growing in the right direction. Every year brings us nearer the desired goal. Is it further asked, Do all normal school graduates succeed as teachers? the answer must be, No. All human judgments are fallible, and the faculties of normal schools are human. The greater number of graduates make successful teachers; successful far beyond winning the encomiums of a pleased public; successful in developing sound judgment, good scholarship, and, withal, true manhood and womanhood in their pupils. Immediate and marked success rarely if ever follows good educational work. The beginnings must be slow and in some cases tedious. Sham may be attractive at once; but honest work must wait for its reward. The mushroom that grows in a night decays in a few hours; but the oak which requires years to come to perfection withstands the blasts of centuries. In his pupilage the trained teacher has learned to labor: he must now learn to wait.

It is further asked, Can the systems developed in the normal schools be applied? Are they practical, or are they only theories? The answer must be, that in the present state of public sentiment, they cannot be all applied. Still, is it not better to have a good theory and work toward it?

Two years ago a member of the school board from Quincy addressed this convention. He used in reference to their work this language: "We looked around and found the right man for the place in our schools, and then '*stood out of his light.*'" This is the key to the success that attended their undertaking. I am fully of the opinion that nearly if not quite one-half our teachers do not and *dare not teach* as well as they can. There is somebody or something in the light. School boards, with no educational or special qualifications for the positions they hold, often stand in the light. The patrons of the school, some of whom are old school-teachers, and all of whom have been taught in certain methods, many times stand in the light. Arbitrary courses of study, requiring so many text-book pages in so many weeks, always stand in the light. Examinations for promotion, based upon mere word-memory, and

showing little or nothing of the result of the training received, stand fearfully in the light. And so I might go on; but have I not shown opacity enough? And all these, if they impede the work of old and experienced teachers, are triply intensified when the teacher is young both in years and experience, and when it is so easy to charge that he is trying to introduce "new-fangled notions." One who will go on in the old beaten path, content to carry the stone in one end of the sack of corn, will meet none of this opposition. But if he be alive, active, intelligent, and especially if he has been at a normal school, he will have to meet it in its full force. So the instruction in professional schools will be exceedingly faulty if its graduates are not warned against tying their faith to any special method or methods. The method may be worth little or nothing; the philosophy that underlies it is everything. And upon this philosophy the skillful teacher will build up a method of his own, one that will be adapted to the place and circumstances.

There is one claim for professional school and for teachers who from their own experience have aided in creating a science of teaching, that, after hearing the very excellent paper of President Reid, I am inclined to make. Through the work of such schools and such teachers in other schools during the last fifteen or twenty years, the systems of education and methods of teaching in our schools have moved onward and upward, until the "educational fallacies," which were so widely portrayed in the paper alluded to, have with the more intelligent ceased to exist. If President Reid will spend a few days at the Normal School, or if he will visit any of our better grade of public schools, he will find that, while he has been thinking out his theories in the cloister of a high school, we have been working them up in the educational field, until the principal of the Normal School, and I dare say the great mass of teachers in attendance upon this convention, will shake hands with President Reid, and fully agree in the main with every point he made. In fact, every point but one, and that in a modified form, has been made the text for papers, lectures, and discussions in teachers' institutes and conventions for the last eight or ten years, and the conclusions reached are identical with those presented by the speaker.

There are probably many weak points in our professional schools; but the weakest of these, in my opinion, is this: that pupils are allowed to enter, pursue the course of study, and graduate while as yet they are quite too young to apprehend, much less fully to comprehend, a considerable part of the philosophy which must underlie a great part of the work. As they go on in their work of teaching, they will perhaps eventually come up to a point where it will all be understood and fully appreciated; but in their earlier work they often "see through a glass darkly." This weak point is not so much a fault of the schools as of public sentiment that is content to have, and actually demands that the responsible work of training young, immortal minds shall be committed to mere boys and girls. I believe every intelligent educator will agree with me in saying that no one, whatever his scholastic attainments may be, should enter upon this work until he has reached physically, mentally, and morally the full stature of manhood. I should gladly wel-

come the day in which it could be said that no one should graduate from a normal school until he had reached at least the age of twenty-one years.

In conclusion, I wish to put forth and strongly to emphasize a claim for those teachers who have won their way by their own efforts to success in their chosen profession, and those who have devoted three of the best years of their lives to studying for the express purpose of fitting themselves for the work of teaching. The claim is, that they shall be exempted from the perplexities, and in one sense the humiliation, of constantly recurring examinations. It is a shame that a teacher who has taught years with marked success, who has shown his fitness by previous examination and by school-room work, may be called at the beck of every new county or State board to undergo an examination to determine his fitness—for what? For doing just what he has been doing, and doing acceptably, in other places. And it is equally a shame that one who has passed through a full course of professional study, and been tested, not by one examination, but scores of them, and hundreds of recitations, and upon whose qualifications a competent faculty backed by an intelligent board of trustees have passed, who has moreover tested his strength and ability in actual work, should be called upon to spend three or four days to demonstrate a fact that has already been fully demonstrated, and which has been certified to by the highest authority of the State. The diplomas of the Normal School bear the signature not only of the State-appointed faculty, but of the board of trustees, including the Governor and Superintendent of Public Instruction. For a county or city board to attempt to review this action is, in my opinion, as absurd as it would be for the Superior Court or a city Police Court to review the acts and decisions of the State Supreme Court.

It is said that "experienced teachers and graduates should not *fear* examinations." They do not fear them. Few well-developed persons would fear the physical examination of trundling a loaded wheelbarrow a certain distance in a day and a half, and back again in the same time; but I fancy they might at least conclude that it was hardly a necessary use of time or physical energy. So a three or four days' examination is a tedious and unnecessary tax upon the time and energy of one who has shown himself fully qualified. Again: these experienced teachers and these graduates are called before boards many of whom are in scholastic requirements far inferior to the candidates upon whose qualifications they sit in judgment.

Teachers' examinations are, at best, but a very imperfect means of testing the teaching ability of the applicant. They can only determine, and that very imperfectly, scholarship. The questions upon theory and practice are, as a general thing, but a farce—mere general questions of opinion; and the shrewd candidate will measure the board, learn what he can of their hobbies and predilections, and answer in a way to secure most credits, instead of giving his own opinion or judgment.

But examinations are a necessity. There must be some way of sifting out inexperienced and untrained applicants; and imperfect as present examinations are, they are a necessity. What I argue against is the system of re-examinations. If a board believe that a teacher has obtained his credentials unfairly, that he is not qualified, they should not hesitate. Indeed, it is their duty to

require a new examination. But in other cases the same courtesy should be extended that is always and most carefully extended in all the other professions.

But beside the question of courtesy and justice, there is a question of policy that should have much weight in this matter. Let us for a moment grant that all teachers are to be re-examined every year, and that all graduates from normal schools should be examined before teaching. What will be the result? The teacher, instead of studying his profession, reading educational literature, and growing in the direction of becoming a better teacher, must and will devote his spare moments to studying up obscure facts in history and geography and catch-questions in arithmetic, and educational conundrums in all branches, that he may raise the percentage on his certificate at the next examination. And what if he does raise this percentage? Will he be any the better teacher for it? Does the teacher with a credit of 90 per cent. teach better than the one who has received but 85? No: the contrary is often the fact.

In like manner the work of normal schools would be changed. Instead of training their pupils to teach well, they must devote much time to training them to pass examinations. It would be possible in three years to train a pupil of average ability into such a sharpness of thought that he hardly need fear any examination upon the subjects studied. But what if this be done? Will any number of credits compensate for the lack of knowledge of methods of teaching? And may not the lack of a few credits be compensated for more than a hundred-fold by previous successful experience of the candidate, or by his careful study of the science of teaching? Do we wish our teachers to work to secure credits upon their certificates, or do we wish our normal schools changed into mere academic institutions? No; let us put our profession upon a higher, broader plane. Let us extend to all the courtesy that is their due. And as it is ever the case, that teachers of successful experience who have not had opportunities for special professional training are first to recognize the benefits of professional training, so it will be found that normal-school teachers and normal-school graduates will be ready to recognize fully the merited success of those who have by hard experience acquired what they under more favorable circumstances have been able to obtain by far less labor. Only in this way can we make our profession respected; for if we respect not ourselves, how can we ask that others shall respect us?

Fellow-teachers, I have finished. Let us go out from this convention strengthened for our labors, each determined so to work that we may win for our calling the respect of all intelligent persons, contributing so far as we may by our lives and our labors toward building up a thorough and universally recognized profession of teaching.

CHAS. H. ALLEN.

State Normal School, San Jose.

Conversation, so valued in ancient Greece, is overlooked and neglected, whereas it is the richest source of culture.—*Daniel Webster.*

MULTIPLICATION TABLE—HOW TO LEARN IT.

APUPIL should never be asked to memorize the multiplication table before he understands it, if for no other reason than that it will take him a much longer time to do so, and when done there has been only a *sickly* development of the mind, as but one of the faculties has been exercised; viz., the memory. *Reason*, that great faculty or capacity of the human mind by which man is distinguished from the inferior animals, remains unexercised, therefore undeveloped. Children should not only be trained to tell, but also to observe, to do, and to reason. Nothing should be done for them which they can with a reasonable effort do for themselves.

The number table, the abacus, or objects of any kind can be used to build the tables, and where they cannot be had (and in fact, where they can be had), the following is an excellent slate exercise.

Draw on the board an oblong numbering it as below—o, 1, 2, 3, etc.

9	8	7	6	5	4	3	2	1	0
2	2	2	2	2	2	2	2	2	0
2	2	2	2	2	2	2	2	—	—
2	2	2	2	2	2	2	—	2	0
2	2	2	2	2	2	—	4		
2	2	2	2	2	—	6			
2	2	2	2	—	8				
2	2	2	—	10					
2	2	—	12						
2	—	14							
—	16								
18									

Teacher.—Class, what have I drawn on the board?

Class.—An oblong.

T.—Yes. Into how many parts have I divided it?

C.—Ten parts.

T.—How have I numbered the parts, beginning at the right side?

C.—0, 1, 2, 3, 4, 5, 6, 7, 8, 9.

T.—That is right. I am now going to write *tens* in each of these parts as many times as the figure at the top of each says. Then how many shall I write here? (Pointing to 0 column.)

C.—Not any.

T.—How many here? (Pointing to 1 column.)

C.—One.

T.—You may count them as I write. (Teacher writes and class counts.)

C.—One.

T. (Drawing line under 2.)—Add.

C.—Two.

T.—How many in here? (Pointing to 2 column.)

C.—Two.

[Teacher writes and class count one, two; teacher draws line and class add, two, four. In each column teacher writes required number, class count and add each until all are finished, when the following questions may be asked:]

T.—How many times did we take two here? (Pointing to 0 column.)

C.—No times.

T.—Then no twos, or no times two are how many?

C.—No times two are nothing.

T.—How many times did we take two here? (Pointing to 1 column.)

C.—One time.

T.—Then one two, or one times two, is how many?

C.—One times two is two.

T.—How many times here? (Pointing to 2 column.)

C.—Two times.

T.—What was the sum?

C.—Four.

T.—Then two twos, or two times two, are how many?

C.—Two times two are four.

[After taking each column, let the class recite. "No times two is nothing; one times two is two; two times two are four," etc. After which, teacher questions as follows:]

T.—How many times do we take two here? (Pointing to 9 column.)

C.—Nine times.

T.—What was the sum?

C.—Eighteen.

T.—Then how many twos in eighteen?

C. (Who see at once.)—Nine twos in eighteen.

T.—You may say it in this way: "Two is in eighteen nine times." Now look at the next column, class, and see if you can answer this question: Two is in sixteen how many times?

C. (At once.)—Two is in sixteen eight times.

Teacher may now erase the work, and tell class to build the table on their slates. This they will do readily, after which they certainly will be better prepared to memorize it, as they can do so understandingly.

W.M. M. GIFFIN.

Training School, Newark, N. J. (In *Primary Teacher*.)

Three boys out of five have in them a considerable natural capacity for thinking, which is left utterly waste. If their teacher would stimulate them to look into the causes of phenomena, if he would put them in the way of asking "Why is this?" or, "How comes that?" an astonishing degree of spirit and vivacity would be given to their minds, and their enjoyment of life, both at school and afterwards, would be largely enhanced. So might their sense of the beautiful be developed by their teachers drawing their eyes to mark the grace of all natural forms and the loveliness of all natural hues.—*Buxton*.

HUSTLE THEM IN.

DEDICATED TO THE FIVE-CENT LODGING-HOUSES.

HUSTLE them in, jostle them in,
 Many of nation, and divers of kin,
 Sallow, and yellow, and tawny of skin—
 Hustle them, bustle them, jostle them in!
 Handfuls of withered but suffering clay,
 Swept from the East by oppression away;
 Baffled adventurers, conquered and pressed
 Back from the gates of the glittering West;
 Men who have struggled 'gainst Destiny's
 frown,
 Inch after inch, till she hunted them down;
 Men who with indolence, folly, and guile
 Carelessly slighted Prosperity's smile.
 Scores in a tier—pile them up here—
 Many of people and divers of kin;
 Drift of the nations, from far and from
 near,
 Hustle them, bustle them, jostle them in!
 Islands of green, mistily seen,
 Hover in visions these sleepers between;
 Beautiful memories, cozy and clean,
 Restfully precious, and sweetly serene.
 Womanly kisses have softened the brow
 Lying in drunken bewilderment now;
 Infantile faces have cuddled for rest
 Here on this savage and rag-covered breast.
 Lucky the wretch who in Poverty's ways
 Bears not the burden of "happier days";
 Many a midnight is gloomier yet
 By the remembrance of stars that have set.
 Echoes of pain, drearily plain,
 Come of old melodies sweet and serene;
 Images sad to the heart and the brain
 Rise out of memories cozy and green.
 Hustle them in, bustle them in,
 Fetid with squalor, and reeking with gin,
 Loaded with misery, folly, and sin—
 Hustle them, bustle them, jostle them in!
 Few are the sorrows so hopelessly drear
 But they have sad representatives here;
 Never a crime so complete and confessed
 But have come hither for one night of rest.
 Seeds that the thorns of diseases may bear
 Float on the putrid and smoke-laden air;
 Ghosts of destruction are haunting each
 breath—
 Soft-stepping agents, commissioned by
 Death.

Crowd them in rows, comrades or foes,
 Deadened with liquor and deafened with
 din,
 Fugitives out of the frost and the snows,
 Hustle them, bustle them, jostle them in!
 Guilt has not pressed into its breast
 All who are taking this dingy unrest:
 Innocence often is Misery's guest;
 Sorrow may strike at the brightest and best.
 You from whom hope, but not feeling, has
 fled,
 This is your refuge from pauperhood's bed;
 Timorous lad with a sensitive face,
 You have no record of crime and disgrace;
 Weary old man with the snow-drifted hair,
 Not by your fault are you suffering there,
 Never a child of your cherishing nigh—
 'Tis not for sin you so drearily die.
 Pain, in all lands, smites with two hands;
 Guilty and good may encounter the test;
 Misery's cord is of different strands;
 Sorrow may strike at the brightest and best.
 Sympathy's tear, warm and sincere,
 Cannot but glisten while lingering near.
 Edge not away, sir, in horror of fear;
 These are your brothers—this family here!
 What if Misfortune had made *you* forlorn
 With her stiletto as well as her scorn?
 What if some fiend had been making *you*
 sure
 With more temptation than flesh could en-
 dure?
 What if you deep in the slums had been
 born,
 Cradled in villainy, christened in scorn?
 What if your toys had been tainted with
 crime?
 What if your baby hands dabbled in slime?
 Judge them with ruth. Maybe, in truth,
 It is not they, but their luck, that is here.
 Fancy *your* growth from a sin-nurtured
 youth;
 Pity their weakness, and give them a tear.
 Help them get out; help them keep out!
 Labor to teach them what life is about;
 Give them a hand unencumbered with doubt;

Feed them and clothe them, but pilot them
out!
Suffering mortals whate'er they have been,
Soonest can mend from assistance *within*.
Warm them and feed them—they're ani-
mals, then;
Teach them and love them—they spring
into men.
You who 'mid luxuries costly and grand

Decorate homes with munificent hand,
Use, in some measure, your exquisite arts
For the improvement of minds and of
hearts.

Lilies must grow up from below,
Where the strong rootlets are twining
about;
Goodness and honesty ever must flow
From the heart-centers to blossom without.

WILL CARLETON.

In *Harper's Weekly*.

MEMORY.

IF you would have fairness in contest, the "under dog" is the one to help, and just now, Mr. Editor, I feel there is need of such defense in the great, wordy, thoughtless war waging about a child's memory and his reason.

For the past five years educational conventions, newspapers, and people have sought to bias public opinion on the fearful mistake which Dame Nature is charged with making in placing memory as the chief light in a child's mind. What did the Almighty make memory for, and give it such prominence in the bright era of youth, if He intended reason to be the governing faculty of that period? What is reason? On what does it build and grow? Can it work from "nothing"? Omnipotence may perform this feat, but not the child's mind. That must be supplied with something to think about before it can draw deductions. It cannot query about nothing. It must see, hear, and feel first. Imagine such a mind, if you can, without these senses. Suppose a child born blind, deaf, and senseless to touch. What is the condition of this mind within? Darkness and silence. How can that mental midnight be broken? Open the eye, unseal the ear, and let their impressions be made. Now, which faculty must work first, memory or reason? Undoubtedly the former; for without it how can reason connect, deduce, and prove? There must be a linking together, a continuous chain, or logic fails. Evidently, then, Nature ordained the first ten years to be the realm of memory to garner in her harvest of facts, her golden sheaves of thought, for reason, in its older, sturdier growth, to thresh and glean. It is not memory we should scourge and despise, but the indiscriminate storage of worthless material. We fail in the method of collecting things to remember. Youth is allowed perfect freedom to browse around among mental weeds and trash, living on the poison of fiction and absurdity. I think it was Thomas Carlyle who has said, "The greatest regret of his life was that he had no one to point out to him the beauties of little things, such as a blade of grass by the wayside, when he was young." He is right, whoever said it. It is a regret to grow up in this world so full of wonderful displays of mechanical construction and philosophical conditions without knowing of them until too late. Show children these beauties, these wonders. Talk to them of the clouds, the winds, and

the storms that are building up and wearing down our earth. Show them the wonderful construction of the eye, the rare skill displayed in a lily's cup, and the power and grace of an eagle's wing. The matchless fitness of light and shadow, how every tree, cloud, and rock becomes an analyzer, splitting the golden beams into morning's purple or evening's fiery red.

Do not give it as a task for the child to weary over, but as something to be loved, kept, and thought about. Then leave the rest to the almighty order of things. In her proper time reason will prove your work.

Oh memory! Blessed, beautiful watcher over our youth, what should we do or be without thee? What would this broader, deeper life be worth, if we could not recall the halcyon days of our little life at school, with all its blunders, mistakes, and trials! That little life let loose among all the fair things in God's great school without!

Beneath the shade of trees *we conned our* young lessons. How sweet to learn them there with blossoms from the peach and orange falling on our books! The dear child-songs of Cowper, Langhorne, and the Howitts! Sweet be the chrism of their sainted souls! More have they done to mold out beautiful lives than logic. And if we learned them well, a loving hand was on our brows, and voice of softest sound taught us how to pray.

Alas! never again those *children* pray; but weary *men* and *women*, striving for the larger worth, the sweet "well done" of Heaven. Ah, no! do not make war on a child's memory. Rather strive to train it, to fill it with the rarest, choicest gifts. Make it methodical, obedient, and eager. Then, when reason asserts itself, it will be successful.

Remember we cannot form our ideal of a model without memory. We cannot look back on the grand and noble of the past, and seek to copy it, without memory. We cannot hold up to the mind's eye for future achievement the object to be gained without it. Never could we say as did Corregio of old, while looking at a lesson from his master: "I too have succeeded; I too am a painter!" Let memory hold her sway, then, where and when Nature has crowned her.

LAURA T. FOWLER.

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The foremost duty of the State consists in the training of diligent, moral, energetic citizens, *not prodigies of learning*.

With this aim in view, the school system should aim directly to the following points:

- a* To develop, systematically, the power of clear and distinct perception.
- b* To develop the power of endurance and responsibility.
- c* To develop the power of self-help and self-control.

In these three points lies the whole secret of a true public education. Clearness and distinctness of perception is not only a prerequisite of all successful labor, but for the right comprehension of the *duties of life*.—Schwab.

MECHANICAL PEDAGOGY.

SECOND PAPER.

BUT to return from this digression. The most pernicious feature of mechanical pedagogy is the tendency to rely on approved methods and systems of instruction, to the exclusion of vital and individual effort. The machine in pedagogy is as powerful as the machine in politics. Every great educational leader has his host of servile followers and blind, unquestioning adherents. These in their school-work mechanically apply his methods, and poll-parrot his theories of teaching; and simply because these methods and theories have the approval of great educators, they proudly imagine that the mechanical application of good methods will alone do the work of educating. If mind were like matter, and certain immutable laws applied to it, then the mechanical pedagogue would be the most successful of educators.

Mechanism involves the idea of the application of general laws. As long as one mind may be an exception to the law that governs another mind, it seems to me a little premature to attempt the expansion of the intellect by machinery. It may be possible, that in the mechanical millennium that is to be, we may have a cabinet officer at Washington who shall be chief of the Bureau of Inherent Predilections, and who shall appoint commissioners and deputies in every State and Territory in the land, whose duty it shall be to examine the bumps of every little specimen of humanity who shall arrive in this land of the free, and label each for the occupation which the hights and hollows on his cranium indicate he should follow: this one, law; that one, divinity; this one, medicine; that one, general utility; and so on through all the utilities and inutilities of life. Then it shall be the duty of the teachers of that period to take these little samples and draw out this faculty and clip off that, so that each may be fitted for the occupation designated by his label. But until the millennium of mechanical intelligence dawns upon us, we would prefer to get along without mechanism in mind-building.

Another pernicious form of mechanical teaching is the disposition of teachers to give assistance when they ought to give encouragement; to give help when they ought to urge to greater effort. A pupil runs against an obstruction in the path to knowledge, and throws out the signal of distress. The teacher hurries to his assistance, and instead of urging him to surmount the difficulty unaided, he metaphorically lifts him over it. Indeed, I have known teachers who were so excessively sympathetic and accommodating that, had it been in their power, they would have put an elevator in the temple of knowledge, and worked the machine themselves, in their kindly endeavors to lift their pupils to the highest story of that fabled edifice, instead of requiring them to climb the stairs.

Heed these admonitions: The teacher's work is "to teach others to teach themselves," to help others to help themselves, to train others to rely on themselves. The real power of the true teacher lies in the vital and vivifying force of the contact of mind with mind; in the power to arouse the slumbering

energies of other minds. There is no such power of man over man as that of mind thrilled with truth, and imparting it with all the force of its individuality. No mechanical imitation of others' methods can ever give this power. If you would be truly successful in your work as teacher, you must evolve your own theories, methods, and systems. I do not say that you are never to use those of others; but whatever theory, method, or system, original or copied, that you use, you must so transfuse it with your own personality that it may become to you a living entity, and not a dead formula. No mechanical application of methods, however good they may be; no servile following of approved systems, however complete in themselves—can give you success. Know this and heed it: The elements of success lie in yourself, and not in any mechanical appliances of methods or systems. These may aid you in your work; but beware that you do not make them the chief end of your work, and not what they should be, accessories and aids. In this lies the evil of the systems, methods, and theories. The teacher allows them to become his masters instead of what they should be—his servants. He offers up his individuality, a sacrifice upon the altar of formalism, and humbles himself with more than oriental servility at the feet of the high priests of education. I believe in every teacher standing up in the godlike majesty of his manhood, and proclaiming his freedom and equality before the most sacred law of his being—the right to own himself. Away with truckling servility to leadership and this idolatrous hero-worship of a great name. Let every teacher pride himself on owning himself, belonging to himself; and not in his wearing the badge and brass collar of Fröbel, of Pestalozzi, of Horace Mann. And I speak this with no disrespect to any of these truly great men.

Whatever of any one's theories or methods the teacher needs, let him take; what not, reject. It is for him to judge how much or how little he needs; it is for him to judge how much or how little he can profitably apply.

But the saddest phase of this mechanical following of theories, methods, opinions, and systems is its opposition to and its intolerance of all reform and progress. My creed, my belief, my system, my theory, contain all of good, all of truth; it is perfect, complete, final; all outside and beyond its pale is falsehood and sin, is *anathema maranatha*. The discoverer, the originator, the man of vital creative mind, is never a bigot. The persecutors of reform and the chief inquisitors of progress are always to be found among the servile imitators of methods and the unquestioning repeaters of second-hand opinions. Intolerance is the offspring of formal creeds and the foster-child of iron systems. It is claimed that education expands and liberalizes the mind. A true education does. A mechanical training that only ties the husks of ideas to the mind, instead of implanting the seeds of thought in it, does not.

The most intolerant and most bigoted of men are to be found among the so-called liberally educated classes. The bitterest foes to human progress, and the most unrelenting enemies to all reform, are not alone of the brainless rabble who cry, "Crucify him, crucify him," to the saviors of mankind, but may be found among those polished men of the schools who never dare to give utterance to a thought unless it has the sanction of their authorities and

the seal of their systems stamped upon it. To me, the most hopeful signs of the intellectual progress of the race are its growing contempt for formalism and its irreverence to authorities. No longer is it possible for sect or party to force all of its adherents to receive unquestioned its teachings, or to accept as infallible its dogmas, because, forsooth, they have been promulgated by its leaders, or laid down in its creed or platforms. Sect or party may canonize its zealots and its partisans, but no Vatican thunders will terrify all of its adherents to neglect the duties and necessities of life upon these saints' days. With every rusting-out of tyrannical systems the hold of the few on the intellectual freedom of the many loosens a little its iron grasp.

Every revolving year sounds the knell of some consecrated falsehood of the past. Every revolving year sings peans for the birth of some new truth. Every vital creative mind is an iconoclast, crushing with many a whacking blow the idols of superstition and bigotry. Every discovery of science, every new truth evolved, brings us nearer to the consummation of that hope of all good men and true—universal education; brings nearer that golden æon when the child of poverty and toil shall share equally in the heritage of knowledge with the sons and daughters of rank and fortune; brings nearer that millennial day when an education shall not mean the inane mouthing of monastic creeds, the garnering of unfructifying opinions, and the heaping up of petrified facts; but instead that vitalized intelligence which, penetrating to the very depths of being, lights up the soul with an aureola of celestial beauty, and guides it out of the night of ignorance, out of the mists of error, out of the shadows of falsehood, into the sunshine of truth, into the sunlight of God.

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A HOODLUM.

CHAPTER IV.—HIS TALENT.

IT is popularly supposed that every individual has some one talent which is a gift of nature, making that individual peculiarly fit for some particular occupation. Like most other popular beliefs, there is some truth here mixed with much that is not so true. Too many of the talents are made of base metal, and give out no certain ring. Some people seem to be fit for nothing useful, while others do well wherever they are put. Some need no help, apparently, others must be led, and not a few will not come unless they are dragged along. A child seldom attends school a year without having a favorite study. One delights in figures, another in spelling, and a third takes great pains with his writing. A wise master takes advantage of the child's preference, and making the favorite study a center of attraction, groups around it the other branches, showing how incomplete any one must be without all the others.

Donald took great delight in drawing, and had acquired some little

local reputation among his brother hoodlums for his pictures before he left San Francisco; but the ruthless hands of the street police, and the kicks and cuffs of the people whose walls he defaced, were serious hindrances to the cultivation of his talent in the city. But at Camp Comfort all was changed. Carl Benson encouraged him to draw the various forms he saw around him, and gave him pencil and paper, blackboard and colored crayons, and showed Donald by precept and by example the value of drawing as a practical study.

Just after Donald came, Carl took a notion to mark his bee-hives like the streets of some cities—the ten rows being marked from 0 to 9 east and west, and the north and south rows A, B, C, etc. Thus each hive was named by a figure and a letter—0 A, 4 C, 8 P, etc. The job of coloring the letters after Carl had marked them in pencil was given to Donald; and by the time it was done their names were committed to memory, and Donald could make any of the letters without help.

"Put an 'I' on the lid of 0 D, so that we may know that they are Italians; and make the 'I' on the 2 B into an 'H,' for that queen raises hybrids. Put 'Q C' on this hive, for it is queenless; but they have queen-cells started."

In this way Donald saw that the ability to make the letters was of practical benefit; and, as he needed them, he took pleasure in learning to draw them in various styles and fashions. Coloring added to their charms, and a few turns would turn a P to a hatchet, or a Q to a man's face; and so it was excellent fun to copy a reading lesson or some outlandishly spelled words, and appropriately ornament them afterwards.

Geography had its drawing and plans of the house they lived in, of Camp Comfort Ranch, of Township 5 North, Range 27 West, of Santa Barbara County, and then of the State of California. These were made and re-made until a nice specimen on cardboard could be put up on the wall for an ornament as well as for use. Donald was a proud boy when a visitor, asking about the location of a certain place, was referred to one of Donald's maps for the desired information. Donald was shown the map of the county in the Santa Barbara court-house, and the maps of the various ranches in the county record-books, and he could not help thinking that the maps there were not so very much better than his own.

"Say, how much did you folks pay for that map?" inquired Donald of the deputy clerk who was showing the map to them.

"About three hundred dollars, I believe," was the reply.

Donald shook his head incredulously.

"If you want any more of those, just send up to Camp Comfort, and I'll give you all you can carry for twenty dollars apiece."

The man laughed, and turning to one of the record books, he said: "Here is a map that cost the owners over twenty thousand dollars to get. If you want a job, you had better try one of this kind."

"That man is just the boss liar of Santa Barbara," said Donald to Carl as they left the court-house. "Twenty thousand dollars for a map like that! He'll have to get a chicken with a gullet like an ostrich to swallow that yarn. Guess he thinks we haven't cut our eye-teeth yet."

"Don't talk slang, Donald," said Carl, reprovingly.

"I can't help it. Common talk don't do it justice," replied Donald.

"The man told the truth; but you did not understand him. The grant was not a good one, and the owners spent over twenty thousand dollars before they could get a title to the land the map showed. That was what he meant."

"But did the first map cost what he said?"

"Yes; the county always has to pay many times what such work is really worth; and there are but few who have the means of drawing a correct map. That map, and indeed the map of nearly every county in the State, is very inaccurate. But every time a new one is drawn they are able to correct mistakes, because of recent surveys; and so they will get reasonably correct in a hundred years or so."

"Yes; I remember that map John Smith first drew of New England. It don't look much like my maps," he added complacently.

"Brag is a good dog," quoted Carl.

"But you yourself say that I do draw well," persisted Donald.

"So you do for a boy. That is well; but to brag of what you can do—that is not well."

"But if somebody asked me whether I drew well or not, what should I say?" inquired Donald, cunningly.

"Show them some of your work, and let that speak for you; or simply say 'yes'; and if you say no more, that would not be bragging."

The study of arithmetic was made pleasant to Donald by the abundant use of drawings. Especially in fractions did Donald find invaluable help in the drawings which made him see that $\frac{2}{3}$ is the same as $\frac{4}{6}$, and that $\frac{1}{2}$ from $\frac{2}{3}$ leaves $\frac{1}{6}$. But it was in the study of plants and animals that Donald liked best to exercise his talent.

Carl was preparing a list of the honey-producing plants of Santa Barbara, arranged in the order of their importance, and Donald drew accurate copies of their leaves and their flowers to illustrate Carl's list. Carl himself was a poor draughtsman; but he insisted upon care and accuracy, and would compare a leaf with the drawing, measuring every part with great care, praising any improvement, and marking every defect; so that the boy improved very rapidly. Then Carl would sometimes take him to the studios of artists who were stopping in Santa Barbara; and some bound volumes of the *Aldine* were excellent teachers of taste. *Harper's Weekly* pictured current history upon the boy's mind, and the pictures of *St. Nicholas* enticed him to read the delightful stories.

But though a taste for other studies was built up through Donald's love for drawing, they were none the less thoroughly studied. While drawing was in a measure a hobby, more time was given to some other studies than to drawing.

The first drawings were done by rule and by measure. No inexactness was allowed. Angles and lines—both must be true. The turning-lathes and the fret-saw gave their help, and curious picture-frames and fancy shelves graced their home, or put a silver equivalent into the maker's pockets. Fancy

designs of miniature houses were made, and many a setting hen spent her three weeks of brooding in a rude copy of some ancient building, or some new architectural monstrosity. Boards were covered three-deep with various fragmentary plans, whose meaning could not be told save by the designer, and sometimes not even by him when the first glow of his enthusiasm had passed away.

Solitude breeds thought, and the hoodlum thoughts, dying from want of nourishment and example, were giving place to the nobler plans of how to do useful things.

Compositions were written from pictures, and many a terrible tragedy and overwhelming disaster were evolved from some innocent-looking sketch. Nearly all boys have a bloodthirsty streak inherited from warlike ancestors who fought to live, and Donald was not exempt from this failing. His heroes were glorious, like Alexander, because they "had killed a hundred more," and were ever performing some marvelous deed of valor that ought to have made them renowned in history. But after a time, when the influence of the mountains, of Carl, and of the better class of books began to be felt, the tales grew milder and more descriptive. Word-painting became the something to be attained, and quiet deeds of kindness and love crept rather shame-facedly in beside their warlike neighbors. The wars described were battles of the spirit, and the conquests were over passions and temptations. Donald delighted to criticise faults in the pictures of others.

"Just look at this picture!" said he to Carl one day. "One of those trees casts its shadows this way and the other tree the other way. A funny old sun they must have there! And that woman is milking on the wrong side of the cow. And I'll bet that cow is thoroughbred, double-distilled *Texican*, for her horns are as long as her whole body. I'll bet the man that drew that picture don't know which cow gives the butter-milk."

Caricature comes natural to children of a certain temperament, and Carl had hard work to keep Donald's pencil within bounds. "Wit that leaves a sting behind is only to be used when wrong is condemned," said Carl to Donald. "Ridicule should never be allowed to add further discomfort to misfortune. It is not individuals who deserve criticism, but actions and principles. Strike at the sin; but pity the sinner. Hate the wrong, and grieve over the ignorance that causes it."

At another time Carl said to Donald: "Draw a picture in your mind of the noblest man you can imagine. Then try to do no deed, to think no thought that would not become that man."

"If I could be as good a man as you are, I should be satisfied," said Donald, affectionately.

"No man is a good pattern for another to model himself after," replied Carl. "Put your nobler self before you, and as you reach your first ideal, a better one will be still farther ahead to call you ever higher."

CHARLES M. DRAKE.

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HOW THE KING LOST HIS CROWN.

I.

THE King's men, when he had slain the boar,
Strung him aloft on the fisher's oar,
And, two behind and two before,
In triumph bore him along the shore.

An oar! says the King: 'tis a trifle!—why
Did the fisher frown and the good wife sigh?
A trifle, sire! was the Fool's reply:
Then frown or laugh who will; for I,
Who laugh at all and am only a clown,
Will nevermore laugh at trifles.

II.

A runner next day leaped down the sand,
And launched a skiff from the fisher's strand;
For he cried, An army invades the land!
The passes are seized on either hand!

And I must carry my message straight,
Across the lake to the castle gate!
The castle he neared, but the waves were great,
The fanged rocks foamed like the jaws of Fate;
And lacking an oar the boat went down.
The Furies laugh at trifles!

III.

The swimmer against the waves began
To strive as a valiant swimmer can.
Methinks, said the Fool, 'twere no bad plan
If succor were sent the drowning man!

To succor a periled pawn instead,
The monarch, moving his rook ahead,
Bowed over the chessmen, white and red,
Gave Check!—then looked on the lake and said,
The boat is lost, the man will drown!
O King! beware of trifles!

IV.

To the lords and mirthful dames the bard
Was trolling his latest song; the guard
Were casting dice in the castle yard;
And the captains all were drinking hard.

Then came the chief of the halberdiers,
And told to the King's astounded ears:
An army on every side appears!
An army with banners and bows and spears!
They have gained the wall and surprised the town!
Our fates are woven of trifles!

V.

The red usurper reached the throne;
 The tidings over the realm were blown;
 And, flying to alien lands alone
 With a trusty few, the King made moan. . . .
 But long and loudly laughed the clown:

We broke the oar and the boat went down,
 And so the messenger chanced to drown:
 The messenger lost, we lost the town;
 And the loss of the town has cost a crown;
 And all these things are trifles!

J. T. TROWBRIDGE.

In Our Continent.

GEOGRAPHY.*

IX. *Coast-Line.*

Let the children in imagination take a walk to the place where the land and water meet, and tell what name they will give to the land *close* to the sea, or *bordering* on it.

They will readily give the word "seashore."

Let them describe it, and tell what they would find upon it.

Give them the words *coast* and *coast-line*.

Show the coast in pictures, and let them find it upon the globe, and lead them to talk about it.

Draw their attention to the indentations and irregularities of the coast-line, and draw on the board simple curves and broken, irregular lines.

Give the words *regular* and *irregular*, and let the children determine (on the globe) which are regular and which are irregular.

Let them trace the coast-line with the pointer, in every case coming back to the point from which they started, in order to teach them to be particular and careful when they really *use* the globe and map.

X. *Peninsula, Cape, and Isthmus.*

Let the children point out the bodies of land with irregular coast-line.

Let them point to the curves the land makes in the water, to the points of land that extend into the water, and tell them we give these points of land different names to distinguish them from the main-land and for convenience in talking about them.

Let them point to the large bodies of land extending into the water, and let them describe these.

They will easily form the definition, and then tell them the name and its meaning—(*almost* an island).

A peninsula is a body of land extending into the sea and nearly surrounded by water.

Let them point to the strip of land connecting the peninsula and the other body of land, and describe it.

* This article is in continuation of one published in our October number.

Give them the word *isthmus*, and tell them it means *a neck*, and then give the definition:

An isthmus is a narrow neck of land joining two other bodies of land.

Ask them to point to bodies of land extending into the sea, smaller than peninsulas.

After they have pointed to several capes, let them give the definition: A cape is a portion of land extending into the sea.

Have them point to capes and peninsulas until they make no mistakes.

XI. *Sea, Gulf, Bay, and Strait.*

Let them point out the bodies of land with irregular coast.

Let them point to the curves or indentations the water makes in the land, and tell them we have names for these curves to distinguish them from the main part of the ocean, and that these three names mean the same thing to us; that they are interchangeable; that a sea could have been called a gulf or bay just as well.

Let them point out seas, gulfs, and bays on the globe (changing from one name to another), and from what they know from their definition: A sea, gulf, or bay is a part of the ocean extending into the land.

Let them compare a cape with a gulf or bay, and see how they are alike, and in what respect they differ.

It is good practice to let them draw the various forms on the board.

Lead them to tell again that the water is close to the land, or *borders* upon it.

Let them see that the seas, gulfs, and bays are close to the land, or border upon it.

Ask what name might be given to a sea that *borders* on the land, and you will invariably get the answer, *border-sea*.

Then show them inland seas, and tell them these bodies of water are also called seas; but, because they are not on the coast, we do not call them border-seas, but give them another name from their position.

Let them describe them.

At first the children will say they are *surrounded* by land; but tell them to look again, and some one will find they are not entirely surrounded, but connected with another body of water.

Give the name *inland*, and let them give their definition of inland sea: A body of water nearly surrounded by land. Compare border seas and peninsulas.

It would be well to give also the term *Mediterranean*, and its definition.

Lead them again to notice how the inland seas are connected with other bodies of water, and let them describe the body of water that connects them.

Tell them it is called a *strait*, and let them give the definition: A strait is a narrow passage of water joining two other bodies of water. Compare strait and isthmus.

Let them point to border seas, inland seas, straits, gulfs, etc., until they make no mistake.

If they can point to the different bodies of water understandingly, they can always make up the definition.

It is always best to show pictures first. The children are always ready to bring books and pictures from papers, and from these you can select what you want.

Always write the definitions on the board; and if the children have blank-books, it is a good exercise in writing to let them copy these definitions into their books. Another good exercise is made by giving the words in the definitions as a spelling-lesson.

XII. *Land Surface.*

Pour water into a basin, and let the children see that it does not heap up on either side, but spreads itself evenly over, and the top or surface is level. Pour water into different shaped vessels, and let them see that the surface is always level. Throw sand on the floor, and have them notice how it falls in a heap; throw water on the floor, and let them see how it spreads.

Lead them to notice that all parts of the ocean are connected; and as water is always level, never heaped up, that the water of the ocean must be level—no higher in one place than in another.

Let the children decide from their knowledge of water which would be the higher, land or water.

Let them tell what would happen if the water were higher than the land.

The water is always lower than the land, and always level; and the sea-level, as we call it, is what we measure the height of places from. We say a place is so many feet above the level of the sea.

Highlands and Lowlands.

Let the children describe some walks they have taken, and tell what they saw as they went along.

Then tell them you will take an imaginary walk with them, and see if they notice anything new on the way.

Walk with them down some street with which they are familiar, and ask them if they have any difficulty in walking, and why not. They will say the ground is even or level, and so they walk very easily.

Then pretend to turn aside, and walk where it is not level; where the horses draw their loads with more and more trouble, and they find they haven't enough breath to feel comfortable, and are obliged to stop and rest often. They will say it is a hill. Rest with them at the top of the hill, and tell them to look down to the foot of the hill and tell what they can see. Give the name *summit* for the top, and *base* for the foot of the hill.

Let them give the definition: A hill is a portion of the land that rises higher than the surrounding country.

Then tell them there is another body of land rising much higher than the hill we are on, that we are too tired to climb now, and ask them what name we shall give it.

Then get the definition: A mountain is a portion of land rising higher than a hill.

Let them compare hills and mountains with the level land over which they traveled, and give them the names *highlands* and *lowlands*.

Then they are ready to tell that the surface of the ocean is *level*; that the

land-surface is divided into highlands and lowlands, and that the highlands are called mountains and hills.

MARY E. BADLAM.

In Primary Teacher.

SOME DEFECTS IN GRADED SCHOOL-WORK, AND THE REMEDY.

IN the early days of graded schools some genius seems to have been struck with the thought that children could be fenced off into separate small compartments, each under the entire charge of a single teacher. I suspect the man was a genius; for we have followed his thought unquestioning, and to-day in any city of our land we shall find forty or fifty, or sixty it may be, children of the same grade depending upon a single mind for instruction and discipline. I purpose to note in this brief article some of the manifest disadvantages of such an arrangement.

First, in government. The power to control is born with some; but wanting in the natal hour, is acquired very imperfectly or not at all. Most teachers can control a class in recitation sufficiently for the purpose of the work; but few can govern a room except by the rod, or by scolding like a fishwife, and then not always. Happy the boy or girl who grows up unhardened by means like these.

Second, in teaching. No one teaches many subjects well. A well-educated person is one who knows a great deal of some one thing, and a little of a great many other things. Human life can compass no more. He can teach one or possibly two subjects thoroughly; he has originality and force in these; outside he is superficial and machine-like. Hence, the development of mind is one-sided under his influence—warped, dwarfed in certain directions. Many of the best principals and superintendents try to remedy this by having teachers change rooms at certain hours, and find the classes greatly benefited thereby. "Twenty per cent. better teaching," says one; and I doubt not his correctness. But this change from room to room is subject to grave objections well known to the practical teacher.

Third. The present system is rigid, inelastic. In this restless country not half our students come up through the grades from the primary, or will remain through the first grade. A boy or girl comes from the country; has a year of precious time to fit for the coming work of life; is beyond the third grade physically and mentally, but is behind a whole grade in grammar, for instance. It is oftener than anything else. He must waste his precious year in the low grade, struggling with the study he hates, and which will be of little practical use to him, and leave the school but little better than he entered it. This is a crying evil.

The remedy is not very far to seek. So construct the building that the individual pupil may have the instruction of each teacher in the subject that one is best fitted to teach, and the disciplinary care of some one with the iron

hand under the velvet glove; who is kind and gentle and just, winning love from every well-disposed child, and respect even from those whose evil tendencies make them subject to occasional and rare severity. And the cases of discipline are much rarer and the punishment less severe with such teachers than with the one of more variable and perhaps milder nature.

It seems to me the best plan is to make each floor an independent school, subject only to a very general supervision by the principal of the building; each floor to have one assembly room furnished with desks. In this each student has his desk, his school-home; then the needed number of recitation-rooms, furnished with settees only. These class-rooms are small, and the whole floor accommodates the same number of students at no greater expense than by the present arrangement. Among the six or eight teachers on this floor is sure to be one good disciplinarian. This teacher, whose desk is in the assembly-room, has in charge the pupils in their study hours, supervises the change of classes, and does some teaching.

Besides correcting the faults of the present system mentioned above, which this arrangement I think will necessarily do, there is an incidental gain not easily overrated. The change of class-rooms is a rest to the pupil. In addition to the physical exercise of stretching his muscles, cramped from the same desk and the same position, the change of room and teacher affords agreeable variety, and enables him to fix his attention much longer on his work.

These considerations so weigh with me that should it ever be my happy or unhappy lot to direct in the construction of a graded-school building, it would be essentially upon the principles here laid down.

IRA MORE.

Normal School, San Jose.

EDITORIAL DEPARTMENT.

THE COST OF EDUCATION.

OUR civilization may aptly be characterized as *The Age of Machinery*. Wood and iron and bronze and brass, impelled by steam and electricity, have quite supplanted all forms of muscular activity, and the day is near at hand when the industrial and commercial world will "run itself." Machines do not eat, and they wear no clothes. Compared with even the lowest forms of sentient organisms, they are essentially cheap. The machine-servant, whether he reaps our grain, bears us from place to place, carries our messages, or prepares our food, is cheaper than his distant relation of flesh and blood. Our world of to-day is born and trained to machinery at machine-rates.

How amazed we are to read of the queen who exchanged a principality for a book, or of the golden showers which fell on Protagoras or Plato!

Yes, machine-work *is* cheap, and machine-education just as cheap as the rest. The tendency of modern thought—at least among the politicians who make

laws and control government—is to class educational systems and school-teachers with the other mechanical appliances which constitute modern civilization. To accomplish a certain result—the mental and moral elevation of the masses—they base their estimate of the necessary expenditure on the means which will secure here, as in the other departments of life and labor, the best *machines* for the work. That is to say, their calculations are based on the cost of machines, and machines they very frequently get.

Herein, we believe, lies the whole question of the cost of education. It can be made just as cheap as the most rigid economist may demand. When our public-spirited and far-seeing newspapers contend that our annual expenditure of twenty dollars per pupil is too much, and that other localities educate at less cost, they are perfectly right. It can be done cheaper—for one-half or one-fourth the money. But when these same newspapers raise up their voices in one lugubrious howl, because a wooden teacher in a rotten slaughter-house does not replenish fast enough the national stock of Websters and Hawthornes and Irvings and Garfields and Longfellows, can they not and will they see why it is?

Is it not because our education is still too cheap? Is it not because our education is too much controlled by the machine—the machine politician, the course-of-study machine, the school-board machine, the machine school-master? Is it not because education is really a matter entirely outside of machinery, requiring mental abilities and moral qualities farthest removed from machinery, and of the highest, rarest order? And can such qualifications and powers be purchased at machine prices?

Let us face the question boldly. What will our people do? Keep on buying wood and stone at the usual rates, and then cry out "fraud" at their disappointment? or require in the teachers of their children characteristics like those of the great teachers whose names have come down to us in history, like Plato and Socrates and Aristotle, like Roger Ascham and Milton and Locke, like Rousseau and Pestalozzi and Frobel, like Horace Mann and Louis Agassiz? Let them demand a "spark of this heavenly flame," and pay therefor a just equivalent.

THE AESTHETIC CRAZE.

OSCAR WILDE, the apostle of æstheticism is with us here in California. The newspapers daily chronicle his goings and comings, and Nob Hill opens wide her exclusive doors. Variegated robes and sunflowers and languishing airs are not unfamiliar sights on our thoroughfares; on every hand are the unmistakable signs of a new and genuine sensation.

But, however much we may sneer at the disheveled hair and knee-breeches and sunflower, the man, after all, teaches a useful lesson.

His text is only the trite and threadbare aphorism that "Cleanliness is akin to godliness"; but like the great prophets of newer doctrines, his sincerity and patience and meekness give fresher coloring to the maxim and greater strength to its application.

Mr. Wilde believes that we should surround ourselves with all that is beautiful, both in nature and in morals. Is there any one who differs from him? He believes in becoming dress for men as well as for women. Is there aught abnormal in such views? He holds that men should exercise an equal care of their

persons as women. Why not? As to the style of dress, whether knee-breeches or pantaloons, long hair or short, why should not Oscar Wilde introduce new fashions as well as our tailor or milliner?

Mr. Wilde is a poet, too. And while his verse will probably not "resound down the corridors of time," or his muse be classed with those of Shakspere, or Milton, or Longfellow, his lines yet read right prettily, and not at all inharmoniously jingle with the doctrines he avows.

So let us listen to him kindly. And more, let us take to heart the one grand precept he preaches, that the beautiful must in the end be the good.

OUR BOOK NOTICES.

ESPECIAL attention is called to the reviews in this number of the JOURNAL. The books noticed are all well adapted for school use. This is the season when teachers and trustees are inclined to buy. We have consequently taken the trouble to select these books, and give as full a description of them as our space will permit. In no case are our notices intended to be fulsome eulogies. We prefer to praise rather than to blame; to see merits rather than to spy out defects; to discover beauties rather than to view deformities. But in every instance it has here been our aim to examine carefully the books submitted, and give an honest opinion. Our readers may depend on it, that every one of the books recommended in this issue of the JOURNAL properly belongs in a school library. We believe a long experience with children has given us a correct insight into their habits and tastes. We know, therefore, what they will read and what will be left unread on the shelves. We have recommended nothing but such books as will suit the healthy taste of every boy and girl, and what at the same time will cultivate the purest taste, and create a desire for more of the best mental food.

BYNON'S FRACTIONAL APPLES.

WE have only time to give a brief notice of a new device just patented by a gentleman of this city for teaching fractions in our public schools. It is simple and cheap, and we have no doubt will be universally adopted as soon as introduced to the notice of school boards throughout the country. With remarkable unanimity the leading educators of this city, Oakland, and Alameda—the only ones so far consulted—have indorsed this new school-room appliance. We cannot do our readers any better service than call special attention to the advertisement (illustrated with a cut) of these "apples," and to mention that they are indorsed and recommended by some of the highest educational authority of the State, among whom it may be well to name President Reid, John Swett, J. B. McChesney, Josiah Keep, Mrs. Sarah B. Cooper, D. C. Stone, J. C. Gilson, and others. It will not be out of place here to quote what is said of this device by a few of these educators:

W. T. Reid, President of the University of California, says: "It hardly needs a recommendation. I know of nothing that answers the purpose as well."

John Swett, principal of the Girls' High and Normal School, San Francisco, says: "They form a simple and ingenious device for teaching fractions. I commend them as worthy of a very careful consideration by teachers."

Mrs. Sarah B. Cooper, Superintendent Kindergarten Association: "I have been deeply interested in Bynon's 'Fractional Apple.' It is the best appliance for teaching fractions I have ever seen. It brings within the comprehension of the child the intricacies of this department of arithmetic. It has its basis in the *kindergarten* system, namely, 'we learn through doing.' It is an attainment to know, but it is a high art to do. It is admirably adapted to the *kindergarten* method of training."

D. C. Stone, Deputy Superintendent of Schools for San Francisco, says: "They will do more to simplify the teaching of fractions than anything that has been invented, and no teacher with any sort of interest in his work will be without them.

OUR ADVERTISEMENTS.

WE have had occasion several times recently to call attention to the announcements of new books, new furniture, and new school apparatus in our advertising pages. We here again call on our readers to note the various important announcements made in this month's JOURNAL.

New school appliances, whether in the direction of books, furniture, or apparatus, often mark important advances in educational methods. They serve to indicate the changes which measure decided progress. For instance, in this number all should read the advertisement of Messrs. Scribner's Sons on page 3. We have no doubt but that the Geographical Reader will soon find a place in every well-conducted school, as an aid to both geography and reading. Then, the *Montgomery Revolving Chart* advertised by Messrs. A. L. Bancroft & Co. is an educational aid whose value cannot well be overestimated. And so on with a number of other books and other apparatus, to which attention is invited.

It is a great mistake to imagine that because the insertion of advertising matter is paid for, it is uninteresting, and may safely be omitted. Scarcely a number of the JOURNAL is issued without some announcement of value to the "live" teacher. To keep up with educational progress, it is necessary to keep up with its literature. The latter is the truest index of the former. So the most progressive—the best—teacher is he who not only reads the advertisements of the articles bearing on his profession, but who, by purchase, makes those articles his own.

DEATH OF HENRY W. LONGFELLOW.

BUT a few days ago our schools and homes celebrated the seventy-fifth birthday of one whom Americans regard as their own peculiar poet. And now, preceded by no word of warning, the message is flashed across the continent that he has passed away from earth.

It would be unreasonable, mortal as we are, and surrounded by mortality, to feel more than a gentle sorrow at a death so calm, crowning so well-spent, so lovely a life. Full of years, full of the recompense of good deeds and noble thoughts, surrounded by those nearest and dearest, he passed the threshold, and stood in the presence of his Maker.

“PROFESSIONAL TRAINING” AND OTHER PAPERS.

THE paper on “Professional Training” in the March JOURNAL, and concluded in this number, forms the ablest presentation of the subject thus far submitted for public consideration. To be fully understood and appreciated, the papers of March and April must be read, as intended by the author, as one production. The limited space of the JOURNAL unfortunately precluded the publication of the entire paper in one issue; but we believe as it is now presented, in two consecutive numbers, it loses but little of its directness and force.

In a dozen places Prof. Allen touches the core of his subject. Nowhere does he descend to apologize for normal schools, and in every sentence lies some cogent argument for a high standard of professional training. The paper is one to be commended to teachers and all intelligent persons, not merely as of passing interest, but as furnishing food for thought and study.

Supt. J. M. Guinn’s paper also is one that calls for the highest encomiums. Prof. Guinn is certainly intolerant, but it is only of frauds and shams. He deals trenchant blows, and the head of the mechanical pedagogue must be made of some substance harder than wood to withstand their force.

Prof. Guinn is no Don Quixote, though the evil he attacks is of more than windmill dimension. In this combat let us hope that he will have the sympathy and support of all who wish well to their kind.

COULDN’T SEE THE JOKE.

THE average John Bull can’t easily see a joke. This proverbial inability we saw well illustrated by a little incident that occurred in the State Superintendent’s office at the capitol a few days ago. Our genial superintendent is noted for his appreciation of a little quiet humor; so when importuned by his deputy to finish some work, he wrote on a placard, and posted up in a conspicuous place in the office the motto, “Never do to-day what you can put off till a day after to-morrow.” “There,” said he, “that’s the rule of the office.”

Some English tourists seeing the sights in Sacramento sauntered into the capitol, and soon came into Mr. Campbell’s office. After examining the various objects of interest there, the attention of one—an old lady—was attracted to the motto on the wall. She called her husband’s attention thereto. Raising his eyeglass, he deliberately read the inscription; then, turning to his companion, said:

“Well, well, I must say I think the old rule’s the best!”

There was a general assent, and then with dubious glance, and gravely shaking their heads, the party left the office.

VERY GOOD.

THE articles on the “Christian Religion,” by Robt. G. Ingersoll, Judge Black, and Prof. Fisher, which recently appeared in the *North American Review*, have been published in book form by the proprietor of the *Review*. The book is well worth buying and reading, if for no other reason than on account of Prof. Fisher’s clear, calm, logical, and overwhelming reply to Ingersoll.

WE are in receipt of a report of the schools of Portland, Oregon, by Supt. T. H. Crawford of that city. The report makes an encouraging exhibit of the condition of the Portland schools.

We have long been aware that the superintendent of that city is a live man, one who understands thoroughly in what a superintendent's duties consist, and who conscientiously and efficiently carries out his conceptions.

SCIENCE RECORD.

THIS RECORD is under the editorial charge of Prof. J. B. MCCHESENEY, to whom all communications in reference thereto must be addressed.

M. PABBE LABORDE is said to have devised an arrangement by which eight, ten, and perhaps twelve dispatches may be forwarded at once over a single wire.

MUSKRATS in eau de cologne are a recent introduction. An American pharmacist, Mr. Fairthorne, is credited with the invention of this new variety of the fragrant tincture of musk.

A NEW use is suggested for ether. A patient recently at the Cork South Infirmary, while under the influence of ether, acknowledged that he had been connected with several moonlight outrages in the districts from which he came.

THE latest invention reported by a Japanese journal is that of Otsuka Minakichi, who, after extensive experiments, is said to have succeeded in making rifles of silk. They are described "as rigid as iron guns, while they are easy of carriage, and have a very long range."

THE presence of chicory, dandelion, etc., in coffee may be ascertained by boiling with sodium carbonate, and then treating with dilute bleaching-powder solution, when the chicory and dandelion are bleached, the coffee being unacted on.

THE *Journal of Science* makes the statement that no beautiful or useful organic species, animal or vegetable, becomes naturalized in any country without human intervention, while the ugly and the noisome contrive to extend their range in spite of man's efforts to the contrary.

WHAT reasons had been advanced by Mr. Howorth to establish his hypothesis that the mammoth had suddenly disappeared from Siberia do not appear to be sufficient. C. Reid say that the mammaliferous deposits cannot have been formed all at once, as there are numerous sheets of clear ice presenting strata which must have been successively frozen.

EDISON'S new dynamo machine is 180 horse-power, and consumes 460 pounds of coal an hour. The average cost per ton is \$2.50, a ton of screenings being used, which reduces the cost of running about 50 cents an hour for 1,200 lamps. Instead of small wire, as usual, the armature is made of copper bars one-half inch thick. The maximum illuminating capacity is 537,600 candles. The cost was \$6,000.

THE ingenuity of mankind in the manufacture of stamps has displayed itself in 6,000 different kinds. The museum at Berlin contains 5,000 specimens, half of which have a European origin. Among the many kinds of decoration which have been used on stamps are coats of arms, stars, eagles, lions, the effigies of five emperors, eighteen kings, three queens, one grand duke, several titled rulers of less rank, and many presidents.

THE Sanitary Engineer gives this valuable piece of advice to housekeepers: "Beware of disused 'conveniences,' and don't trust to the memory of any one for filling the visible trap with water. Better remove the whole fixture and seal up its outlet if not wanted for frequent use. Moreover, don't you put such an antiquated device as a pan-closet in a first-class house anywhere. Even if the receiver be ventilated, the vent-pipe may work the wrong way and deceive you."

THE new metal, of which it is proposed to make pipes in which to lay telegraph wires under ground, is said to be only about one-sixth the weight of iron. It is composed almost wholly of pure carbon, and so is indestructible; it does not rust or change by exposure, whether in the air or underground, and is not affected by frost. But the chief virtue claimed for it in connection with underground wires is that it is a perfect insulator. It is said, too, that the pipes need not be buried very deep in the earth, as they may be of a semi-elastic character, adjusting themselves to the slight upheaval and depression of the ground through the action of frost.

DARWIN, in his latest work, estimates that there are in gardens 53,767 worms to the acre, and that they would weigh 356 pounds. Having four or five gizzards apiece, each worm is able to digest a large amount of coarse food, and to bring sixteen tons per acre to the surface per annum. Mr. Darwin says that a field near his house has been cleared of cobble-stones within his remembrance, and this not so much from the fact that the pebbles have been undermined as because fine earth has been brought to the surface. Many of the foundations of Roman buildings recently discovered in Great Britain are preserved underneath this constantly accumulating deposit of "earth mold," which is from two to three feet deep over the ruins at Wroxeter.

A SCIENTIFIC writer in the *Mark Lane Express* says: "The flavor of beef is due to the juices, and if during cooking these be allowed to escape, the beef loses much of its taste. Hence, in boiling, it should from the outset be exposed to a bright, quick fire, which by causing the superficial fiber to at once contract and the albuminous juice near the surface to coagulate, leads to the plugging up of the surface pores, and consequent retention of the juices. Similarly, in boiling, beef should be plunged into almost boiling water. On the other hand, in making beef tea, cold water is poured on chopped beef, and gradually heated to draw the nutriment of the beef into the water."

THE AZTECS.—Prof. Stephenson, of the Hayden surveying party in New Mexico, is charged by a Chicago paper with describing the Aztecs as an extinct race that never existed. He says they are a myth, and that the tribes known as the Cliff-dwellers are to be credited with all the romance attached to the Aztec name. New Mexico is full of their buried towns and cities. During his summer's work in New Mexico, Prof. Stephenson made a number of valuable collections, including skeletons and remains of extinct animals. Among his trophies are two gods of Egyptian character, with finely-cut features, outstretched wings, and traces of paint on their faces. The professor brought away specimens of pottery bearing a close resemblance to that unearthed in the ruins of the Old World, and also secured the secret of its manufacture from the Indians, who still make it in New Mexico.

FORMATION OF ICE.—Pure water freezes at 32° Fahr., but if any compounds be dissolved in the water, these prevent it freezing at that point and lower its freezing point. Also water containing dissolved air or other gases does not freeze till these are first expelled. By boiling the water, certain salts, such as the carbonate of lime, are precipitated and the gases expelled, thus leaving the water to freeze at a higher temperature than before, and at a quicker rate. The ice produced is harder, because it is free from air bubbles. These are produced in the rapid freezing of unboiled water thus: The upper surface of the water being frozen, the lower surface commences then to freeze; but before doing so, it begins to part with its contained air. This air is prevented from rising

to the surface by the film of ice already formed, hence it remains below in small bubbles, and ice forms around it. Such ice is of course more brittle than that which is free from these bubbles of air.

CORRESPONDENCE.

SAN FRANCISCO, March 13th, 1882.

TO THE EDITOR OF THE PACIFIC SCHOOL JOURNAL:

At your earnest solicitation, I will now briefly give you my idea of the classification and qualifications of substitute teachers for the school department of San Francisco.

I would divide them into two classes, namely: the experienced class, and the inexperienced class. I think the present number (twenty) quite sufficient, divided as follows: The experienced class to be composed of six experienced teachers—two male and four female—two of whom must have double certificates, enabling them to teach in the cosmopolitan schools. The salaries of this class of teachers I would adjust as follows: The experienced primary teacher to have a stated salary of \$75 per month. The experienced grammar, high school, or principal teacher to receive a per diem one-twentieth of the permanent teacher's salary for whom he may respectively supply. The experienced class I would have remain a permanent class and employed every day, and yet at the discretion of the secretary; for by this discretionary power the department would be the better served. Again: I would have the experienced-class teacher, upon demand made by the principal, supply for any assistant teacher in his school that he may suggest, and the board in turn assign the assistant teacher to the substitute work for a week or ten days, as the urgency of the case may demand.

The inexperienced class, or present substitute class, would be composed of fourteen teachers of more or less experience—say from six to twelve months—and from this class all permanent teachers shall be appointed, and to this all appointments shall be made. The salary of this class of substitutes shall be and remain as the present substitute class.

Respectfully submitted,

T. B. DEWITT.

Chairman of Com. on R. & R.

EXAMINATION QUESTIONS.

SAN FRANCISCO, March 6th, 1882.

EDITOR THE PACIFIC SCHOOL JOURNAL:

Dear Sir—As it may interest some of your readers, I herewith send you some of the questions proposed to first-class teachers at the last examination held in Dublin, Ireland. I may mention that the teachers in Ireland are divided into three classes—first, second, and third. At some future time I may send you some of the questions proposed to second and third classes. I trust some of your correspondents will send solutions to these questions. Indeed, I think it would be of great service to the teachers if a portion of the

JOURNAL were regularly placed at their disposal for the discussion of questions on various subjects pertaining to their profession.

Yours, etc.,

R. C. O'CONNOR.

ARITHMETIC.—80 marks. (Only 5 questions to be attempted.)

1. Explain clearly what is meant by the term *Logarithm*, and distinguish *Characteristic* and *Mantissa*.

Multiply 35864 by 963, and find the square root of the product by Logarithms.

Given—

No.	Log.	No.	Log.
963	.9836263	35864	.5546587
34536	.5382720	58767	.7691335
7	846	8	1409
8	972	9	1483

} Tab. } Dif. 126. } Tab. } Dif. 74.

N. B. No credits for this except done by logs. (16 marks.)

2. At what rate per cent. per annum would £1,860 amount to £2,748 1s. 6d. in eight years, compound interest? (16 marks.)

3. The logarithm of 125 is 1.09691. Find log. of 12.8. (16 marks.)

4. Explain the difference between and give examples of *Arithmetical*, *Geometrical*, and *Harmonical* Progression respectively. Show how an arithmetical is converted into an harmonical progression. If a man puts by 1d. at the end of January, 2d. at the end of February, 4d. at the end of March, and so on, how much has he saved at the end of 12 months? (16 marks.)

5. After buying a house and paying the taxes, which amounted to 20 per cent. of the purchase money, a man sold his claim at a loss of $7\frac{1}{2}$ per cent. on his gross outlay. Had he, however, received £70 more for the house, he would have gained $4\frac{1}{6}$ per cent. on his gross outlay. How much did the house cost him exclusive of taxes? (16 marks.)

6. What sum must a person invest in consols at $90\frac{3}{4}$ in order, after paying an income tax of 5d. on the pound, to secure £470 a year? Disregard broker's fees. (8 marks.)

7. A and B enter into partnership, A contributing £540 more than B. They gain £355, of which A gets £200. Find the capital of each. (8 marks.)

8. Insert 3 harmonical means between 27 and 15. (8 marks.)

9. Find $\sqrt[3]{5}$ and $\sqrt[3]{5}$ each to three places of decimals? (8 marks.)

ALGEBRA.—80 marks. (Only 5 questions to be attempted.)

1. If $S_1, S_2, S_3, \dots, S_n$, be the sums respectively of n geometrical series, whose first terms are $a, 2a, 3a, \dots, na$, the number of terms in each n , and r the common ratio, prove that

$$S_1, S_2, S_3, \dots, S_n = \frac{n(n+1)}{2} \left(\frac{rn-1}{r-1} \right) a. \quad (16 \text{ marks.})$$

2. Given $\sqrt[3]{a-\sqrt[n]{n}} + \sqrt[3]{a+\sqrt[n]{n}} = b$, to find the value of c . (16 marks.)

3. The difference of two numbers is 48, and the arithmetical exceeds the geometrical mean by 18. What are the numbers? (16 marks.)

4. If two boys set off in opposite directions from the right angle of a triangular field, run along the sides without varying their velocities, which are in the ratio of 13 to 11, and meeting at the middle of the opposite side, and continuing their course meet afterwards 30 yards from the point where they started: required the length of the sides of the field. (16 marks.)

5. Solve the simultaneous equations:

$$\begin{aligned}x + y + z &= 14 \\x^2 + y^2 + z^2 &= 84 \\xz &= y^2.\end{aligned}\quad (16 \text{ marks.})$$

6. Express following surds with fractional indices, and find their product.

$$\sqrt[m]{a^{3p}x^{2m}-ny^{5m+1}} \text{ and } \sqrt[m]{a^{m-3p}x^ny^{m-1}}. \quad (8 \text{ marks.})$$

7. Add the following fractions, and reduce the result to its simplest form:

$$\frac{bc}{(c-a)(a-b)} \quad \frac{ca}{(c-b)(b-c)} \quad \frac{ab}{(b-c)(c-a)}$$

8. Insert 4 arithmetical means between 2 and -18. (8 marks.)

GEOMETRY AND MENSURATION.—80 marks.

1. Through a given point describe a circle touching a given straight line and a given circle.

2. Show that $\frac{1 + \sin A}{\cos A} = \tan (45^\circ + \frac{1}{2}A)$.

3. Given the rectangle contained by two lines and the difference of the squares of them. Find the lines by a geometrical method.

4. A, B, and C are the angles of a triangle. Prove that $\tan A + \tan B + \tan C = \tan A \tan B \tan C$.

5. Taking for granted that the earth is a sphere, what parallel of latitude divides the surface on the northern hemisphere into two equal parts? Prove the correctness of your answer.

BOOK NOTICES.

WORDS, FACTS, AND PHRASES. A Dictionary of Curious, Quaint, and Out-of-the-way Matters. By Eliezer Edwards. Philadelphia: J. B. Lippincott & Co. San Francisco: Joseph A. Hoffman, 208 Montgomery street. 631 pp. Price \$2.

The above title quite fully explains the character of this book. In one respect, however, is it slightly misleading. The information contained therein should be classed as useful rather than as curious or

out-of-the-way. The book contains nearly four thousand brief articles, each of which has evidently been prepared with great care, and specially with a view to absolute accuracy.

We know of no book in our language which, within its compass, goes over the same field as this work. The mass of information on matters that daily come up in the school-room, is enormous. It is one

of the most useful books on our list for use in the school library. Teachers should see that every school is furnished with a copy.

VOCAL ECHOES. A Collection of Three and Four Part Songs, for Female Voices, with Pianoforte Accompaniment. For Ladies' Seminaries, Colleges, and Schools. By W. O. Perkins. Price \$1. Published by Oliver Ditson & Co., Boston.

The attention that is now being paid to part-singing in ladies' schools and classes makes the publication of "Vocal Echoes" at this time of more than passing interest. The collection includes both new and a few of the older and familiar part-songs, of an average length of four to six pages each, and occupying 142 octavo pages. We notice Cherubini's "Cradle Song"; "Down in the Dewy Dell," by Smart; "The Violet (Das Veilchen)," from Curschmann; "A Spring Morning," by Franz Abt, and Concone's "Evening Hymn," besides many other beautiful compositions of which space forbids mention.

SHAKESPEARE'S MEASURE FOR MEASURE, MERRY WIVES OF WINDSOR, LOVE'S LABOR LOST. Edited by William J. Rolfe, A.M. New York: Harper & Bros. San Francisco: A. L. Bancroft & Co. and Payot, Upham & Co. Price 60 cts., cloth; paper, 40 cts.

These are the three latest volumes of Dr. Rolfe's excellent edition of Shakespeare's plays. Our opinion of this edition has already been expressed in the JOURNAL.

These volumes are neither in excellence of mechanical finish, in wealth of illustration, in copiousness of notes, nor in the critical character with which every obscure point is cleared up, a whit behind their predecessors.

FRANKLIN SQUARE SONG COLLECTION. Songs and Hymns for Schools and Homes, Nursery and Fireside. Selected by J. P. McCaskey. New York: Harper & Bros. San Francisco: A. L. Bancroft & Co. 160 pp. Price, cloth, \$1; paper, 40 cts.

This is a charming book of songs, or perhaps it would be better to say, a book of charming songs, every one being a gem. Every song is complete on a page, and where it does not occupy the whole space, choice paragraphs of reading matter on appropriate subjects fill up. There is absolutely

no padding of a half-dozen indifferent songs to each beautiful one in this collection. Prof. McCaskey, one of the editors of the *Pennsylvania School Journal*, and himself evidently a teacher, has chosen well, and has brought together within these covers what we personally have been long anxious to see—a collection of musical gems adapted to all ages, from beautiful cradle-songs for childhood's earliest memories to the grandest anthems for the matured and cultivated mind. We recommend this book to our teachers very heartily.

THE PHILIPPICS OF DEMOSTHENES. Edited by Frank B. Tarbell, Ph.D., Yale College. Boston: Ginn, Heath & Co.

This edition of the *Philippics* is the most complete yet presented for the consideration of the American student. Advantage has been taken of the great German classicists, notably of Rehdantz, Shaefer, and Blass. The introduction, which is mainly historical, will give a clear view of the condition of the Grecian States when Philip entered on that career of conquest which finally revolutionized the civilization of the world.

The notes and analyses are very full, the German authors above named and Saupe, Franke, Westermann, and Heslop being freely used.

In point of clear typographical appearance, binding, etc., there is nothing further to be desired. The established reputation of Messrs. Ginn, Heath & Co. for the highest excellence in this respect is maintained in this book.

FARM FESTIVALS. By Will Carleton. New York: Harper & Bros. San Francisco: A. L. Bancroft. 167 pp. Price, cloth, \$2.

This is the third number of the "Farm" series by an author whose verses are sweet with the breath of the hayfield, the farm-yard, and rural life. Mr. Carleton is undoubtedly a true poet. He idealizes subjects which but a moment ago seemed commonplace and uninteresting, until, even to the most earthy, they glow with all the glamour of brilliant pageantry.

In this volume "The Festival of Reminiscence," "The Festival of Anecdote," and "The Festival of Reunion" contain some heart-touching melodies.

This book is copiously illustrated, the engravings being evidently by the same hands that make the *Monthly Magazine*, and the other Harpers' publications, so attractive. Mechanically, as well as in other respects, the work is almost a marvel of beauty.

TOBY TYLER, OR TEN WEEKS WITH A CIRCUS. By James Otis. (Illustrated.) Price \$1.

THE CRUISE OF THE GHOST. By W. L. Alden. (Illustrated.) Price \$1. New York: Harper & Bros. San Francisco: A. L. Bancroft & Co.

These are two delightful stories for children of from eight to fourteen years old, and well adapted for a place in every school library. They contain just such adventures as children, especially boys, love to read about; are written in simple, attractive style, and are altogether free from unhealthy sensation or morbid sentimentalism. "Toby Tyler" records the trials and experience of a little boy who runs away from home to join a circus, which, after ten weeks, he abandons to go home again, a wiser boy.

"The Cruise of the Ghost" is a rather more adventurous tale of the four boys whom Mr. Alden introduces to us in the "Moral Pirates," and who go on a cruise in the unique-named "Ghost" along the Atlantic coast. The cruise is full of incidents charmingly related. The appearance of the books is attractive, and they commend themselves as well worth attention.

GERMAN PRINCIPIA. Parts I. and II. Being a Complete German Course Containing Grammar, Delectus, and Exercise-book, with Vocabularies and Materials for German Conversation. Third Edition, Revised and Enlarged. New York: Harper & Bros. San Francisco: A. L. Bancroft & Co.

That this work, compiled on the plan of Dr. William Smith's Latin *Principia*, has met a generally felt want is shown by the fact that the third edition is now before us within a year after the issue of the second. The aim of part I. is to give the student an accurate knowledge of the chief grammatical forms of the German language, a knowledge without which either a speaking or reading acquaintance is impossible.

A few simple rules of syntax are given and illustrated; but the main division of this subject is deferred very appropriately for a future volume on German Prose Composition.

Part II. of this work consists mainly of reading lessons, and is divided into four sections. First, anecdotes in the easiest style; second, a selection of the best fables of Lessing and other German authors; third and fourth, more difficult narratives, sketches of natural history, passages from the history of Germany, etc. Each lesson is accompanied with numerous questions thereon, and also with copious notes.

We recommend these books to teachers of German classes, and especially to those who are studying the language by themselves. This latter class will here find help which they cannot well get anywhere else.

LECTURES ON TEACHING. Delivered in the University of Cambridge, England, by J. G. Fitch, M.A. Cambridge, England: At the University Press. San Francisco: A. L. Bancroft & Co. 436 pp. Price, \$2.25.

One of the most encouraging signs of true educational growth—an unmistakable evidence that a mere calling is crystallizing into a profession—is the growth of a pedagogic literature, of which this book is a notable type.

The work before us contains fifteen lectures delivered by Prof. Fitch in 1880, before those students of Cambridge University who "intended to adopt the profession of teaching." As stated in the author's preface, they "relate mainly to the practical aspects of the school-master's work."

While some of the titles of chapters or lectures are, e. g., Discipline, The Study of Language, The English Language, Arithmetic as an Art, Geography, and the Learning of Facts, the book is in no sense a manual of methods. To quote the author, "It may be doubted whether at the present stage of our educational experience any body of rules whatever could be safely formulated and declared to be the best. Nor is it certain, even though the best conceivable methods could be put forth with authority, that more harm than good would not be done, if by them teachers were deterred from exercising their own judgment,

or became less sensible of the responsibility which lies upon them of adapting methods to their own special circumstances and needs."

This work is recommended to those teachers who believe in something more than pay-day.

SCRIBNER'S GEOGRAPHICAL READER AND PRIMER. A Series of Journeys round the World (Based on Guyot's Introduction), with Primary Lessons. New York: Charles Scribner's Sons. 282 pp.

Now that teachers generally are alive to the importance and advantages of constant supplementary reading this book, together with another referred to in these pages, is peculiarly timely.

The radical change in educational opinion as to what should be taught under the head of geography and what omitted, is accurately exemplified in this book, which is made to be read and talked about, but rarely memorized. It is only when we reach part II., and have what is termed the "Primer of Lessons," that we come to the learning of geographical facts. In this part each lesson consists of three sections: first, the introduction, which serves to recall previously acquired ideas; second, the lesson proper, in large print, which is intended to be learned in the usual way; third, the exercise, which suggests familiar talks between teacher and pupils, such as should be held in all properly taught classes.

The illustrations are just what might be expected from a house renowned as the former publishers of *Scribner's Magazine*. In fact, in every way mechanically it presents an unsurpassable appearance.

We select this book for a word of special commendation, as it is directly in the line in which some of our most active thinkers and best teachers have been working for years. These, as well as all desirous of keeping up with the advance of educational methods and literature, will do well to secure and examine the work.

DE FINIBUS BONORUM ET MALORUM. LIBRI QUINQUE. Edited by Nicolaus Madrigius. New York: Harper & Bros. San Francisco: A. L. Bancroft & Co. Price, cloth, 55 cts.; paper, 36 cts.

This is another volume of Harper's Latin and Greek texts, published in an excellent

form for use. Like the preceding volumes, the type is large and clear, the paper good, and the semi-flexible covers calculated to wear well.

HARPER'S CLASSICAL SERIES FOR SCHOOLS AND COLLEGES. Under the editorial supervision of Henry Drisler, LL. D. Jay Professor of Greek in Columbia College.

THE PROTAGORAS OF PLATO. With an introduction, and critical and explanatory notes. By E. G. Shiler, Ph. D. New York: Harper & Bros. San Francisco: A. L. Bancroft & Co. pp. 146.

This celebrated dialogue of Plato, the greatest, we believe, of the Socratic dialogues, is here for the first time introduced in a fitting dress, to the attention of the American student.

Prof. Shiler has evidently undertaken his task *con amore*. In the Introduction the thought or argument of the *Protagoras* is clearly stated. The notes which occupy sixty pages of the work are in many cases original, but the most eminent Greek scholars, such as Sauppe, Ast, Heindorf, and others, are freely used. The text is that of Schanz, a recent edition. There are many foot-notes to the text, all by the best authorities. A Greek as well as an English index, completes a work which will, we believe, prove eminently satisfactory to American students of Greek.

METAPHYSICS. A study in First Principles. By Borden P. Bowne. New York: Harper & Bros. San Francisco: Payot, Upham & Co. pp. 534.

The school library is no place, nor can adequate space be found in an educational magazine, for a fitting review for what may certainly be termed a great work on mental science.

Too few of our teachers read at all; it would be futile to expect them to read a work every line of which offers the most substantial food for thought. The divisions of the subject, and the reasons therefor, we give in the author's own words:

"I have divided the work into three parts, whose titles are strongly suggestive of the ancient scholastic treatises on metaphysics. But the resemblance does not go beyond the titles; and these have been used as indicating better than any others the natural divisions of the subject. Ontology, or existence

in general; cosmology, or cosmical existence and processes; and psychology, or psychical existence and processes—are the divisions which reflection upon experience immediately suggests. Of course, it is not expected to reach a knowledge of details by the way of speculation, but only to reach an outline conception of reality which shall be valid for all detail, and within which all specific study must be carried on."

LECTURE NOTES IN CHEMISTRY. A syllabus of Chemistry. By Le Roy F. Griffin, professor of the natural sciences and astronomy in Lake Forest University. Philadelphia: Sower, Potts & Co. pp. 100.

This excellent compilation by a practical teacher, will save the student in chemistry much unnecessary labor, and add interest to the subject.

The author divides the work into four chapters: I treats of General Principles; II, of Crystallography; III, of the Non-Metals; IV, of The Metals.

EMPIRICAL PSYCHOLOGY, OR THE SCIENCE OF MIND FROM EXPERIENCE. By Lawrens P. Hickok, D.D., LL. D. Revised by President J. H. Seelye, of Amherst College. Boston: Ginn, Heath & Co. pp. 291.

This is a work on mental philosophy, elementary enough for our ordinary high schools, yet, sufficiently comprehensive to clearly outline the science.

We first have an Introduction, treating of The Difficulties and Tendencies to Error in the Study of Mind; then Anthropology, followed by Empirical Science and Empirical Psychology. The main body of the book is divided into four divisions; first, The Intellect; second, The Susceptibility; third, The Will; fourth, A Universal Philosophy.

Typographically, and in binding, the imprint of Ginn, Heath & Co., is sufficient guarantee of their first-class character.

CHARLES LAMB—ENGLISH MEN OF LETTERS. By Alfred Ainger. New York: Harper & Bros. San Francisco: A. L. Bancroft & Co. Price 75 cts.

This series, like "American Statesmen" elsewhere referred to, should be placed on the catalogue of the school library. In estimating the character of a man like Charles Lamb, or gaining an idea of the value of his writing, the cyclopedia article

or dictionary sketch is an outline too bare for even a superficial conception.

Pre-eminent among English authors, the life of Charles Lamb has a moral. Even the most cursory reader can discover it, even the most unimpressible must take it to heart.

What gives especial merit and interest to the book before us is, that one of the chief sources from which it is compiled is the writings of Charles Lamb himself.

This book also, then, can be heartily commended to trustees and teachers as eminently fit to be added to their libraries.

TABLES FOR QUALITATIVE CHEMICAL ANALYSIS. With an introductory chapter on the Course of Analysis. By Prof. Heinrich Will, of Giessen, Germany. Edited by Charles F. Himes, Ph. D. Philadelphia: Henry Carey Baird & Co. Price, \$1.50.

The value of these tables will be appreciated by every practical chemist, and by the few professors of Chemistry in our colleges and University. The fact that this is the third American edition translated from the eleventh German, is indicative of their value.

A PRACTICAL GRAMMAR OF THE ENGLISH LANGUAGE. Revised edition. By Noble Butler. Louisville, Ky.: John P. Morton & Co.

This is a fair type of the old-fashioned grammar, which, it is pleasant to know, is quite rapidly going out of date. A third of a century ago, when the first edition was issued, it was undoubtedly ahead of the times; and even now the author shows a careful observation of the forms of the English tongue, and close reasoning thereon.

The classification and definitions of the book are, we believe, unexcelled; but entirely too much space is occupied with parsing and analytical exercises. In fact, the book appears "padded" out of all reason. Nor can we agree with the author's division of his subject into orthography, orthoepy, etymology, syntax, and prosody. Orthography and Orthoepy have certainly no more connection with grammar than stress, or emphasis, or inflection, or definition; while prosody seems to have no more claims than any other division of rhetoric.

The chief merit of the work is the clearness with which obscure etymological points are elucidated.

TREASURY OF GENERAL KNOWLEDGE
For school and home. By Celia Doerner.
Part I. Cincinnati: Van Antwerp, Bragg & Co. Price 50 cents. If ordered by mail, one-sixth added for postage.

This little book was used by its author, a teacher in one of the Cincinnati public schools, in manuscript form for some years. Her work proved so successful that Supt. J. B. Peaslee of that city, one of the ablest educators in the Union, in his fifty-first annual report spoke of Miss Doerner's work as follows :

"In an article in my last report, I took occasion to commend exercises in General Information, and to give a few questions from the note-book of Miss Celia Doerner, of the Twenty-third District School. I am glad to be able to report that, during the past year, there has been a very general introduction of this kind of work into the upper grades of our schools. Hundreds of pupils have thereby gained much valuable information. A spirit of inquiry and research has been awakened in them, which will be productive of greater results. As this work is entirely optional on the part of the teachers, it is a matter, therefore, for congratulation that so many of them have taken it up."

The book is divided into three sections, namely : Section I, Natural History and the Human Body; section II, Science and Kindred Topics; section III, Miscellaneous.

Each section is divided into short subdivisions, with appropriate headings, and the whole is admirably arranged and systematized.

The plan adopted is that of questions and answers, the former occupying the first half of the book. For convenience of reference, the questions and answers are numbered correspondingly, but each answer forms a complete sentence, and can be read understandingly without reference to the corresponding question.

A second part, intended for more advanced pupils, is now in course of preparation.

MONTEITH'S POPULAR SCIENCE READER.
Containing lessons and selections in Natural Philosophy, Botany, and Natural History, with blackboard and written exercises. By James Monteith. New York:

A. S. Barnes & Co. San Francisco: Cunningham, Curtiss, & Welch. pp. 36c.

This is, without exception, one of the best and most useful books for the school library and for supplementary reading yet issued from the press. Like another book noticed in this month's JOURNAL, it is directly in the line of the most advanced thought and the best work of our leading teachers.

Within this compass of three hundred and sixty pages, filled with excellent illustrations, is a mass of useful and highly entertaining information, presented in an attractive form, and constantly lighted up, as it were, by appropriate selections from eminent writers, such as Longfellow, Bryant, Kingsley, Aldrich, Tennyson, Whittier, Burritt, Bulwer, T. Starr King, Du Chaillu, Stanley, De Amicis, and a host of others.

This, decidedly, is one of the books no good teacher will do without.

ON BOARD THE "ROCKET." By Robert C. Adams. Boston: D. Lothrop & Co. pp. 335. Price \$1.25.

This is a rather lengthy story of sailor life on board the "Rocket." It differs considerably from the conventional sailor story. It is essentially a moral story, told by a moral-suasion man. If the book lacks excitement, it is at least full of incidents which are vouched for as true. We believe the reader can here gain a correct idea of what is a sailor's life, on a good ship, commanded by good men.

FIRST FRENCH BOOK. After the "Natural Method" By James H. Worman, A. M., New York: A. S. Barnes & Co. San Francisco: Cunningham, Curtiss & Welch. pp. 84.

This book is constructed on what is known as the "natural method" of teaching languages, which might as appropriately be called the method of common sense. French is taught by this system to an American boy, precisely as it would be to a French boy. In the book before us, pictorial illustrations give great aid to a comprehension of the language; grammar also is taught from the first, so that the student may learn to speak accurately. The examples come first, therefrom are deduced the general laws of the language.

We recommend this book to the attention of French students, and also to teachers of that language.

AMERICAN CLASSICS FOR SCHOOLS. Longfellow. Boston: Houghton, Mifflin & Co. San Francisco: A. L. Bancroft & Co. pp. 96.

The death of the great poet, only a few days ago, invests everything bearing his name with a sad and heightened interest. We cannot but feel that another dear and near friend has passed away. But he surely must have gone, as his brother poet just gone before, so grandly says,

"Like one who wraps the drapery of his couch
About him, and lies down to pleasant dreams."

The object and scope of this little book may best be learned from the publishers' preface which we quote below: The series of **AMERICAN CLASSICS FOR SCHOOLS** is prepared with a regard for the needs of pupils who have learned to read with some ease, but are not yet expected to study literature; it is meant for the children of the common school. The first use to which a child's power of reading should be put is that of obtaining a familiarity with those forms of pure literature which come within the range of its mind, and it is every way right and desirable that pure literature of American origin should be preferred for American children. This, the finest expression of our life, has the highest value in the education of those who are to be American citizens. There are venerable authors, and there are those no longer living, whose works have passed into a secure place in the world's literature, and it is from these that a collection should be made, which may offer a foundation for a knowledge and love of good letters.

This book should certainly have a place in every school library.

SPARKS FROM A GEOLOGIST'S HAMMER. By Alexander Winchell, LL. D. Chicago: S. C. Griggs & Co. San Francisco: A. L. Bancroft & Co. pp. 400. Price, \$2.

This is a collection of very attractive essays by one of the most eminent scientific men of our country. Dr. Winchell, the professor of Geology in the University of Michigan, is well known for the comprehensiveness of his views, and the force and ability with which he gives them utterance.

The volume is divided into five parts,

termed respectively, *Aesthetic*, *Chronological*, *Climatic*, *Historical*, and *Philosophical*. Under the first head, we have essays on Mont Blanc and the Mer de Glace, etc.; the second treats of The Old Age of Continents, Obliterated Continents, A Grasp of Geologic Time; the third, Geological Seasons, etc.; the fourth, A Remarkable Maori Manuscript; and fifth, the Genealogy of Ships, Huxley and Evolution, Grounds and Consequences of Evolution, the Metaphysics of Science.

The book is printed in clear, legible type, on excellent paper, and is copiously illustrated. It is well worth a place in every school library, and teachers will find it a very entertaining as well as instructive book.

MANUAL OF OBJECT-TEACHING. With Illustrative Lessons in Methods and the Science of Education. By N. A. Calkins. New York: Harper & Bros. San Francisco: Payot, Upham & Co. pp. 469. Price

Prof. Calkins has been for many years assistant superintendent of New York City. He is also well known as the author of "*Primary Object Lessons*," a book of which the fortieth edition was recently issued. Superintendent Calkins, in his preface, says: Permanent and uniform success in teaching must come through the use of those methods which are in accordance with the principles of education; therefore an intelligent understanding of those principles is necessary to the securing of desired result. From these statements, the importance of attention to the science of education—of knowing what are the several powers of the mind, and the means for their development and proper cultivation—become readily apparent. By a careful study of this department of education, teachers may ascertain whether or not the means which they are using will accomplish the end in view, in the acquisition of knowledge, and the proper training of mental power. Indeed, it is the duty of every teacher TO KNOW HOW to do his work, and also TO KNOW WHY he does it in one way rather than in another. An important purpose of this volume is to aid the teacher in learning THE HOW and THE WHY in teaching, and thus help him onward in the better work of instruction, while it awakens, at the same time, a deeper interest in the philosophy of education, and leads to a more thorough un-

derstanding of the important work to be accomplished.

The scope of this book may easily be learned from the headings of the chapters, which are as follows :

Design of Object-Teaching ; Place, Direction and Distance ; Geography ; Weight ; Form ; Color ; Properties of Objects ; Natural History ; Plants ; Minerals ; Occupations and Trades ; Physical Training ; Moral Training and School Discipline ; Science of Common Things ; Science of Education ; Man's Nature and Powers ; Powers of Mental Reproduction ; Powers of Human Reason ; Powers of Moral Action ; Power of Willing ; Questions for Examination of Teachers.

While there are some points in Mr. Calkins' arrangement of the subject that are not new, yet there is considerable matter introduced which we have never before seen in any similar work. The treatment is broad and comprehensive, sufficiently detailed in statement to give accurate conceptions of every educational principle. The practical exercises which are numerous, are very valuable, not merely for the normal student, but for the teacher, as furnishing excellent models for daily lessons.

An exceedingly useful feature for the student of the science of pedagogy is the questions for the examinations of teachers. These treat exclusively of the theory of teaching the various branches of the school course.

This is a work of which it may truly be said that no teacher can afford to be without it.

A POPULAR CAL. FLORA, OR MANUAL OF BOTANY FOR BEGINNERS. Containing descriptions of flowering plants growing in Central California and westward to the ocean, with illustrated introductory lessons especially adapted to the Pacific coast. By Volney Rattan, teacher of Natural Science in Girls' High School, San Francisco. Third edition revised and enlarged. San Francisco : A. L. Bancroft & Co. 1882. Price \$1.25.

Two years since the first edition of this little work was published and used in our high schools and botany classes through the State too considerable extent. It has now been rewritten, and nearly one-half of it is new matter. There are many new illustrations also, the drawings of plants being nearly all of the natural size, giving young

pupils a more correct idea of the subject than if drawn on one-half scale. There is added to the work also a new analytical key, by means of which all common plants can be readily determined. Also a description of our more common oaks. The first part of the book is devoted to the development of seeds to show the origin and growth of plant life, so that by actual experiment and observation one gains the requisite knowledge, rather than by memorizing the text-book. This book is intended to cover the ground of Central California, but will also answer well for the rest of the State. It is very creditable work to both author and publishers.

WORD-BUILDING. For the use of Classes in Etymology. By S. S. Haldemann, LL.D. Philadelphia: J. B. Lippincott & Co. San Francisco: J. A. Hoffman. Price 60 cts.

This is the last work ever penned by the late lamented Dr. Haldemann. It is elementary in treatment, and contains at least one very valuable feature. But a single department of etymology is illustrated—that of constructing words. To quote the author: "The scientific arrangement has been adopted, which shows affinities by associating allied words, such as pure English, *father*, Latin, *pater*, Greek, *patri*." Instead of treating many words briefly, the author takes a small number of bases, and derives from them every possible derivative.

The book is without question a valuable addition to our works on language.

AMERICAN STATESMEN. John Quincy Adams. By John T. Morse, Jr. Boston: Houghton, Mifflin & Co. San Francisco: A. L. Bancroft & Co. 315 pp. Price \$1.25.

The American public owes another debt to the publishers of the *Atlantic Monthly* for the series "American Statesmen," of which this is the initial volume. As stated by them in their prospectus, "the object of the series is not to give merely a number of unconnected narratives of men in American political life, but to produce books which shall, when taken together, indicate the lines of political thought and development in American History—books embodying in compact form the result of extensive study

of the many and diverse influences which have combined to shape the political history of our country.

Mr. Morse divides the career of John Quincy Adams into three parts: Youth and Diplomacy; Secretary of State and President; and In the House of Representatives.

Mr. Morse is evidently in hearty sympathy with his subject, and therefore he presents us here with a true biography. He enters into no analytical disquisitions regarding this or that event; but in a simple manner records the various events with which the life of his hero had to do.

As an acquisition of permanent value to the school library this book and the whole series have no superiors. Both the subject and its style of treatment recommend it for a place in every school.

AN INTRODUCTION TO THE HISTORY OF EDUCATIONAL THEORIES. By Oscar Browning, M.A., New York: Harper & Bros. San Francisco: Payot, Upham & Co., and A. L. Bancroft & Co. 199 pp.

As stated by Dr. Browning in his preface, "the history of educational theories may be of practical use to teachers in two ways: it may show what is the historical ground for retaining existing practices in education or for substituting others; and it may, by telling us what great teachers have attempted and what great thinkers have conceived as possible in this department, stimulate us to

complete their work or to carry out their principles under easier conditions.

This book includes twelve chapters, opening with Education among the Greeks, Theories of Plato and Aristotle, down to chapter XII., which treats of the English public school. While the treatment of the subject on the whole is quite satisfactory, there is one serious shortcoming, which goes far to mar the work. We refer to the omission of all reference to the ideas of Frederick Frobel and Horace Mann. We think the author errs in making Frobel merely an imitator and follower of Rousseau and Pestalozzi. To us, it seems that if ever man conceived and preached a new and original educational theory, Frederick Frobel was that man. And if Horace Mann did not originate a theory of popular education, he at least constructed a system whose prototype it will be difficult to find. But, as we have before said, the book will on the whole repay study, and is a gain to our literature.

THE FOUR MACNICOLs. By William Black. New York: Harper & Bros. San Francisco: A. L. Bancroft & Co. Price \$1.

This is a charming little story by that king of story-tellers, William Black, of four Scotch laddies who, being left without father or mother, supported themselves and rose to independence by their own exertions as fishermen. The book is well illustrated, and possesses the charms with which Black invests all his tales.

EDUCATIONAL INTELLIGENCE.

SAN FRANCISCO COUNTY.—*Report of the Pioneer Kindergarten.*—The morning of the 8th of February, 1882, witnessed the re-opening of the Pioneer Kindergarten in its new apartments, on Market street, near Seventh. The rooms are large, sunny, and well ventilated; the yard an unusually pleasant one. We are made very comfortable, owing to the kindness of Mr. M. H. Hecht and Mr. P. B. Cornwall in donating fuel. We are also indebted to Mr. M. H.

Hecht for the safe delivery of our furniture and material. The ladies of the executive committee very tastefully decorated the rooms with bric-a-brac and bright pictures, which were kindly donated by Mr. Horace Fletcher of Ichi Ban, Mr. Walsh, and Mr. I. N. Choynski. We opened with an attendance of eight children, ranging from three to five years. By noon of the next day there were twenty-five enrolled. We now number forty-five. This part of the city was

greatly in need of a kindergarten, as was shown by the increase of attendance within a few days. Several very distressing cases have been brought to my notice, among which let me call your attention to that of a man who, while working on the streets during the rainy season, had contracted pneumonia. His wife was at the same time an invalid from chronic rheumatism. The family consists of six children, and the father expressed himself as deeply grateful for the care taken of three little ones during the day. Among my little charges my attention is especially called to two beautiful children whose father is an inmate of the Insane Asylum, and the mother is obliged to work in a factory all day for barely enough to put food in their mouths. One of the most docile and obedient children I have, is a little boy whose mother is obliged to go out washing by the day, and rather than allow him to roam the streets, she left him locked in a room, kicking and screaming, to the great annoyance of the neighbors. (It affords me great pleasure to watch his bright, beaming face, and to feel that the kindergarten has been such a source of happiness to him.) The children are bright and intelligent, and I think, from present indications, a large and successful school will be built up. Already they have done considerable work of various kinds, such as sewing and weaving, which affords them great pleasure. These, with the "daisy-chains" they have made out of bright-colored paper, form a part of the decorations of the room. We have many little waifs who come hatless and shoeless, and are only too delighted to find a shelter from unkind parents and uncomfortable and dreary homes, to be warmly clad and comfortably housed and cared for. I cannot close my report without kindly thanking the board of trustees, and particularly lady members, who have so kindly assisted myself and sisters by their attendance and kind suggestions as to the management of the school. I only hope they will continue to visit the school, and assist me in carrying out their wishes. I am,

Yours respectfully,

JESSIE MORSE.

In point of the integrity and intelligence

of its members, the present board of education stands higher than any of its immediate predecessors. In fact, from the beginning of its term in December last, their proceedings have been characterized by dignity and harmony. Though there is no salary or emolument of any kind connected with their position, the members of the board have personally spent much time in visiting the schools, making themselves familiar with the work of the teachers, studying the needs of the department, and developing plans for its improvement.

Prominent among the members for cool judgment, broad, liberal views, and disinterested devotion to the best interests of education, are Drs. H. M. Fiske and T. B. DeWitt and Messrs. Stern and Dunne.

In the public career of these gentlemen, we have every evidence that those who best cherish the interests of the children attending our schools, are the truest friends of their teachers. Dr. Fiske is a gentleman who has had two years' previous experience in this work—with him most truly a labor of love—and the influence of his enlightened experience cannot but materially benefit the department.

One action had by the board we are unable to indorse. This is the formation of a new committee, called the "Visiting Committee." Is this not in the nature of a fifth wheel to the educational coach? What is the city superintendent for? It appears to us that this is precisely one of the things for which the city now pays \$4,000 per year; and for that matter, \$3,000 more in the shape of a deputy. Certainly all the members of the board may and should visit the schools (and they will always be heartily welcomed); but is it not making the duties of three or four of them entirely too onerous to expect them to do that which the law prescribes a highly-salaried official shall do?

If he is derelict in his duty, let some one speak out; but do not impose his obligations on other shoulders.

The finance committee of the board of education have asked the board of supervisors to levy for school purposes for 1882-83 the sum of \$850,000.

In view of the strict economy thus far practiced by the board, it is hoped that the supervisors will pass the estimate without

reduction. The school directors have earned the respect and confidence of the community by their administration of their department, and their estimate should be granted without question.

In this connection, we cannot refrain from expressing our condemnation and disgust at the course of a few daily newspapers of this city. No sooner was this demand of \$850,000 made public, than carping criticisms and buncombe pleas for economy began to fill their editorial columns. One thing is certain, either there is something in the air of the school department which can immediately turn twelve honest, intelligent, and respected citizens into fools and knaves, or else there is something very rotten in these daily newspapers. Judging from their past history, all intelligent people will join us in believing that if there is either knavery or stupidity, it is rather in one or two newspaper offices than in the present board of education.

The board in March elected a new board of examiners, to hold office for two years from June. They are as follows: Joseph O'Connor (re-elected), Selden Sturges (re-elected), Jacques London, and Mrs. Craven.

ALAMEDA COUNTY. — Another example of the place seeking the man has been furnished by Oakland in the election of J. C. Gilson, erstwhile county superintendent of Alameda County, to the city superintendency.

Mr. Gilson did not seek the place; but

the teachers of the department and the best part of the community secured him the nomination on the Republican ticket, and elected him by the largest majority on his ticket. We know the people will never have occasion to regret their choice.

Supt. J. C. Gilson having resigned the county superintendency on his election as superintendent of Oakland, A. L. Fuller—some years ago county superintendent—has been elected to the vacancy.

It is with feelings of the deepest regret that we note the resignation of Prof. E. R. Sill from his chair of English Language and Literature in our State University. We understand that he intends going East.

Prof. Sill is a gentleman whom this State can ill afford to lose from the ranks of its cultured men. He is not merely a thinker, but a doer.

With Prof. Sill's resignation, there are now six chairs vacant in the University.

SANTA CLARA COUNTY. — There has been quite a new departure in the San Jose school department since Supt. A. W. Oliver took charge. Among the improvements introduced has been the art of printing, in the high school. That is to say, the boys and girls of several classes are taught to set up their own compositions, not so much (or not at all) to learn typography, but to use that art for its value in learning spelling, punctuation, capitalizing, and composition.

It is said that the experiment is a grand success.

NEWS RECORD.

Foreign and Domestic.

The newspapers have been full for the last two weeks of the details of disastrous floods in the Southwest, the greatest damage having been done in the cotton-growing region below Memphis. In Arkansas, Mississippi, and Louisiana, thirty counties on the Mississippi, the Red, and White Rivers are more or less under water. 70,000 people have been driven from their homes, and will have to be supported at public expense for the next month. Not less than 20,000 destitute sufferers are reported in Arkansas

alone; rations are being issued to 18,000 in Mississippi, and the suffering must be far greater than these figures can convey.

After Prince Milan of Servia had accepted the title of King Milan I., the Skuptschina proceeded to pass a bill defining the Sovereign's rights and prerogatives. Russia, Austria, Italy, and Germany have assented to the elevation of the principality to a kingdom. Italy and Germany have recognized the kingdom. Servia, as a kingdom, was received with great rejoicing by the Prince and people of Montenegro.

The temperance people are rejoicing because the U. S. Senate has passed, by a vote of 34 to 14, a bill providing for the appointment by the President, and confirmation by the Senate, of a commission of seven persons, not more than four of whom shall be of the same political party, or be advocates of prohibition, to hold office not exceeding two years, who shall investigate the alcoholic liquor traffic, its relations to revenue and taxation, and its general economic, criminal, moral, and scientific aspects in connection with pauperism, crime, social vice, public health, and general welfare, and who shall inquire as to the principal results of license and prohibitory legislation. The commissioners are to serve without salary, and report within eighteen months after the passage of the act. An appropriation of \$10,000 is made for their expenses.

The House of Representatives has passed the Anti-Polygamy Bill substantially as it passed the Senate. This is the first dead shot at polygamy which that institution has yet received.

The Senate has passed, by a vote of twenty-nine to fifteen, the bill which provides that on and after the expiration of ninety days from its passage, and until the expiration of twenty years, the coming of Chinese laborers to the United States shall be suspended, under a penalty of imprisonment not exceeding one year, and a fine of not more than \$100 against the master of any ship who brings a Chinese laborer to this country during that time; Chinese teachers, students, travelers, diplomatic agents, and others shall be required to produce passports from the Chinese Government, indorsed by the diplomatic representative of the United States in China, or by some United States Consul, identifying the bearer as belonging to one of the classes not excluded by this measure.

The House of Representatives, by an equally large majority has also passed the bill. It now awaits the signature of the President. There are, however, grave fears that he will veto it.

Mr. Blaine delivered a remarkably eloquent oration in the Capitol, at Washington, on February 27th, at the memorial exercises in honor of the late President Garfield.

His audience was one that, in standing, can be compared to only one gathering mentioned in modern history—that assembled to witness the trial of Warren Hastings. The Secretary's address will take rank as one of the greatest orations delivered in the English language.

The President has nominated Samuel Blatchford, of New York, to be Associate Justice of the Supreme Court, in place of Justice Hunt; and Mr. John Russell Young to be Minister to China.

Mason, who shot at the assassin of President Garfield, has been dishonorably discharged from the army, and sentenced to eight years in the Albany (N. Y.) penitentiary.

There was a terrible earthquake in Costa Rica last month. Much property was destroyed, but few lives were lost.

On March 24th, Henry W. Longfellow, the great American poet, died, at his home in Cambridge, Mass.

Educational.

The Ladies' University at St. Petersburg has a physical laboratory with 130 students, a chemical laboratory with 60 students, and a physiological laboratory with 100 students. The botanical cabinet has 20 microscopes, and the treasury contained on Jan. 1st 29,100 roubles. The whole institution is maintained by private contributions and by entrance fees of \$25 per year. The lectures are delivered by professors of the St. Petersburg University, and since last year the programme has been rendered quite equal to that of the male university. A special mathematical faculty was recently opened. The number of students at this Free Ladies' University is 980, and 42 assistants.

The "Teachers' Institute" is the name under which the Philadelphia teachers have associated themselves for mutual entertainment and improvement.

The membership is about eleven hundred. Its monthly meetings appear to be well attended, and the exercises of an interesting character. The library contains 6,863 volumes, and numerous professional and other magazines are taken. Financially, the Institute is in good condition, having a balance to its credit for the year of \$965.69, and invested funds amounting to \$16,700. One of the most valuable features of the Institute is its "Trust and Relief Fund," for the aid of teachers, sick or infirm, and needing assistance.

We notice with surprise that the Philadelphia Board of Education, which must be a more than usually asinine body, discourages the monthly meetings, on the ground that they are of a light and frivolous character, and unfit the teachers for serious, practical school work.

Educational journalism and the public schools of the Union have sustained a severe loss in the death of W. D. Henkle, editor of the *Ohio Educational Monthly*, and one of the foremost educators of our country.

The rule forbidding the employment of married women in the Chicago public schools has been rescinded.

Professor Robert Graham was nominated for State Superintendent of Wisconsin, by all the political parties. This is a high tribute to a worthy man. So should it be everywhere, in regard to educational offices.

Some idea of the extremely rapid growth of the world's metropolis may be formed from the fact that the School Board of that great city finds it necessary to build a hundred new schools immediately, each capable of accommodating one thousand pupils. It is estimated that new schools will have to be provided in future for more than ten thousand per year.

Over 300 girls have recently been removed from the public schools of Lewiston, Me., and placed in a Catholic parochial school, and their withdrawal will involve the closing of at least six public schools.

Cyrus W. Field has proposed to erect at Williams College a memorial window to the memory of the late president. There is also a plan to found a memorial professorship. The popularity of her great alumnus, doubtless, had something to do with the increased number of students this year. Williams needs a liberal endowment, and deserves it too.

England now expends annually the sum of \$1,580,000 upon her industrial schools.

A medical college for women is to be established in San Francisco.

The following items from "Drift" in the *Northeast Journal of Education*, are apt and to the point:

We recently requested a class of twenty children or more, seven or eight years old, in a village school-house, to point to the north. The reason why not a soul was able so to do, was given by their mistress: "*The children haven't begun geography.*" The mistress was an estimable lady, and the dearly beloved relative of a member of the school committee!

Good fashions grow apace. The training school for servants, including the cooking-school, is springing up in a hundred cities, and becoming the "annex" of numerous schools, white and colored, in North and South. Nothing more useful has been attempted for many a year. If several thousand accomplished ladies, who are dying of ennui, could be detailed by Dame Fashion, during the coming winter, to instruct as many hundreds of ignorant serving-women and shiftless mothers in good house-keeping, there would be a double-action industrial school as beneficent to the teachers as helpful to the taught.

The Examining Committee of a certain county reports the unearthing of a venerable educational fossil who, for a generation, had played schoolmaster to successive detachments of the army of the future. To

the questioning on grammar, the ingenuous reply was: "Grammar consists of four parts, Orthography, Etymology, Syntax, and Prosody. My scholars now seem to want to go no further than orthography, and I can stand an examination on that. When any pupil calls for etymology, I'll work up on that, and appear before your honorable board."

In a new railroad village, recently visited, we learned that six boys were being schooled at a neighboring academy at an expense of \$1,800. Of course, six prominent citizens in a district school meeting voted against the tax for public instruction. As a consequence, the remaining one hundred children in the place were gathered in the shabbiest building in the village, and taught, at an expense of \$400 for the entire crowd, probably for five or six months in the year. A compromise in that town which would have put the schoolhouse in decent repair and given the whole body of children eight months of suitable schooling, would have saved \$500 to the village, and, in the end, satisfied the parents of the six boys; while the remaining one hundred would have enjoyed the greatest American chance—a good common school.—*Exchange.*

Professor Kiehle, President of the St. Cloud Normal School, Minnesota, has been promoted to the State Superintendency made vacant by the death of Hon. David Burt, the late incumbent. Prof. Jerome Allen, of the Genesee Normal School, New York, has been proffered the position resigned by Prof. Kiehle, and has accepted.

Russia and France are just now most active in establishing manual training schools. In the Russian technical schools, pupils pay about \$15 a year, taking ordinary school instruction for four and a half hours a day and working for five hours. Austria has eighty industrial schools, which give instruction to about 4,000 pupils. In the French schools articles are manufactured for sale.

The public schools of Chicago employ 1,257 teachers, and the school property is valued at \$3,743,000.

There are 822 teachers in the Baltimore public schools, and but 38 of this number received a college education. The attendance at the schools during the past year averages 36,337 pupils.

Here is a proof that the highest culture and progressiveness do not always go hand in hand: Harvard University replied to the request of Miss Kate E. Morris, a graduate of Smith College, for admission to candidacy for the Degree of Doctor of Philosophy, that "the corporation are not prepared to admit women as candidates for a degree."

Prof. G. Campbell, recently of the Minnesota State University, has been appointed to the chair of Philosophy at Bowdoin, lately endowed with \$50,000 from the Stone estate.

At the great English Universities of Oxford and Cambridge there has been a surprising increase in the number of matriculations since the year 1871. In this decade half a dozen flourishing colleges have been created and developed in different parts of Great Britain; but their success has been far from prejudicial to the two great universities. Cambridge has this year the largest matriculation she has ever known, the freshmen numbering 835.

Four of our prominent colleges now have a course in special preparation for public life. Columbia led the way, and is followed by the University of Michigan, Cornell, and the University of Pennsylvania. Many of the colleges have been giving solid instruction in political science and economy; but it was a part of the undergraduate course, and not, as it should be, a professional department.

Supt. Field of Brooklyn died last month.

Prof. Jerome Allen, who has been so long identified with the educational matters of New York, has been appointed Principal of the Minnesota State Normal School at St. Cloud. Prof. Allen is one of the most distinguished educators of the Union; he is widely known as editor of *Barnes' Educational Monthly*, and as the late principal of the Geneseo State Normal School, New York.

The senior and junior classes of the Indiana State University have been formed into a class in pedagogics, and have received daily instruction therein for a term of five weeks. This step was taken in view of the fact, that the institution was supplying a large number of teachers, 17 of the last graduating class being employed in that capacity throughout the State.

Supt. Cole of Albany suggests, that the board of education provide twenty-five copies of some good juvenile magazine for the use of the reading classes in the lower grades of the public schools. The Albany teachers have begun, systematically, to furnish lists of books for home reading suited to the age and mental progress of their pupils.

Harvard College has the largest freshman class in its history, numbering 250. Amherst has 97, Williams 85, Yale 255, Brown 70, Tufts 33, Dartmouth 45, which, including specials, is much the smallest class for many years.

The American Institute of Instruction has formally and unanimously accepted the invitation of the National Association to hold a joint meeting at Saratoga the second week in July, 1882. This joint meeting will prove, nodoubt, the largest and best gathering of teachers ever assembled in the United States.

Personal.

When Thackeray visited Oxford to make arrangements for delivering his lecture on "The Four Georges," he had to wait upon the Vice-Chancellor to obtain his leave and license. After giving his name and explaining the object of his intrusion, the novelist had the pleasure of taking part in the following colloquy: "Have you ever written anything?" "Yes; I am the author of 'Vanity Fair,'" "A Dissenter, I presume. Has 'Vanity Fair' anything to do with John Bunyan's work?" "Not exactly. I have also written 'Pendennis.'" "Never heard of those books, but no doubt they are proper works." "I have also contributed to 'Punch.'" "I have heard of 'Punch.' It is, I fear, a ribald publication of some kind." After such an experience, it did not shock the humorist to hear one waiter say to another, "That's the celebrated Mr. Thackeray;" and, asked what the celebrated Mr. Thackeray had done, honestly own, "Blessed if I know!"—*All the Year Round*.

Hon. F. A. Tittle, one of the most popular and genial men over on the Comstock, has been appointed Governor of Arizona. Mr. Tittle has been a resident of Virginia City over thirteen years, and only removed from there to Arizona six months ago.

Premier Bismarck is said to be writing an account of his life and times, his sons assisting. He was an intimate friend and fellow-student of our lamented historian, Motley.

It is said that among the papers of the late E. W. Stoughton was found an autograph letter of George Washington, taking strong grounds against slavery in this country, and expressing a fervent hope that it would soon be blotted out. With it were other original and unpublished letters of Washington.

"Marion Harland" teaches a Bible-class of forty young men in the Sunday-school of the church at Springfield, Mass., of which her husband is pastor.

Walter Scott was known as the boy "who has the thickest skull in school." Milton and Swift were noted for stupidity in childhood. Sir Isaac Newton ranked very low in school until he was twelve years of age.

Think of these men, teachers, when you have a dull pupil, and spare no pains. You know not the future of the "incurrigible dunces" as Sheridan was called.—*Exchange.*

Gov. Perkins is occupying his spare time and his talents lecturing for the benefit of poor churches and for the establishment of public libraries and others charitable objects. He has two very able lectures—"George Peabody" and "The California Farmer and His Home"—which have greatly interested his audiences in different sections of the State. He is the first California Governor who has devoted time and talent—and Governor Perkins has both in a pre-eminent degree—to the fostering and building up of such institutions.

The sudden though not unexpected death of Dr. J. G. Holland is a heavy loss, not only to his family and numerous friends, but to New York society at large. For years his charming home in Park Avenue has been the center of one of the choicest literary circles in the metropolis, where genius outranked wealth and fashion, and where talent backed by moral worth was the best passport to favor. A multitude of people throughout the land who have shared the hospitalities of this mansion, will grieve to learn that its portals are closed by death. A delightful host, a genial companion, a sincere friend, a devoted husband and father, and a pure and high-toned man of letters, Dr. Holland won the respect of all who knew him, by his sterling qualities of head and heart. He was the *preux chevalier* of modern times, a BAYARD

sans peur et sans reproche, and the honored record that he leaves behind him will be his friends' best consolation for his loss.—*Harper's Weekly.*

At Yale last year, so says a college paper, the valedictorian was a Hebrew, the salutatorian a German, the prize claimer a Chinaman; but the pitcher of the baseball club was an American. America is bound to give her young men a liberal education in one department at least.

M. Sudre advocates a scheme for a universal language, to be formed out of the seven notes of music, *do, re, mi, fa, sol, la, si*, which are pronounced in the same way by all peoples.

Charles Crocker, President of the Southern Pacific, has given the Academy of Science, San Francisco, \$20,000 in Southern Pacific 6 per cent. bonds, the interest to be devoted to original scientific investigation on the Pacific slope.

Miss Mary Sutherland Clarke, grandniece of Washington Irving, whom she is said to resemble, was lately married in New York to Mr. John Wilson, of Montreal, whose father was president of the Hudson Bay Company.

The proceeds of Professor Tyndall's lectures in this country were set aside to found a scholarship for American students in German universities, and Mr. Lucian L. Blake, son of Rev. Dr. Blake, pastor of the Winslow Church of Taunton, Massachusetts, is the first to receive the benefit of it, at the Royal University of Berlin.

LITERARY NOTES.

The March-April number of *Education* contains, among others, the following articles: The Aspects of the Teaching Profession, by Prof. W. H. Payne; Emancipation of Teachers, by Prof. W. N. Hailmann; Society in Account with the Common Schools, by Hon. D. F. DeWolf; Color-names, Color-Blindness, and the Education of the Color-Sense in Our Schools, by B. Joy Jeffries, A.M., M.D.; The Training of Statesmen, by Charles F. Thwing, A.M.; Normal Schools—What They Have Done, by Annie Tolman Smith.

Harper's Magazine for April has even more than its usual allotment of beautiful engravings. Among others, we have space to name but Spanish Vistas, by George P. Lathrop; Athena Parthenos, by Prof. B. L. Gildersleeve; Silver San Juan, by Ernest Egersoll; The History of Wood-Engraving, by G. E.

Woodberry; Poor Oglala-Moga, by David D. Lloyd; Mr. Gladstone at Hawarden, by Henry W. Lucy; the two serials—Prudence, by Mrs. Lillie, and Anne, by Constance Fenimore Woolson—and a number of shorter thought not less interesting articles.

The *Popular Science Monthly* contains for April, Chinese Immigration, by Gerrit L. Lansing; The Scholastic Prelude to Modern Science, by Henry Duncan Macleod, M.A.; How Animals Breathe, (II., illustrated), by H. L. Fairchild; Has Science Yet Found a New Basis for Morality, by Prof. Goldwin Smith; Fossil Seeds (illustrated), by Stanislas Meunier; The Unawep Canon, by Henry Gannett; Recent Wonders of Electricity (II.), by W. H. Preece, F.R.S.; Modern Explosives, by Benjamin Vaughan Abbott; The Germ Theory, by Prof. Louis Pasteur; Dean Swift's Disease, by Dr. Bucknill, F.R.S.; Hyacinth Bulbs, by Prof. Grant Allen; The Javanese Calendar, by J. A. C. Oudemans; Sketch of M. Louis Pasteur, with portrait; Entertaining

Varieties—The Mountains of the Moon, The Chronicle of Hakim Ben Sheytan, etc.

In the *North American Review* for April, Gov. Eli H. Murray, of Utah, treats the existing crisis in the political fortunes of that Territory. An article entitled Why they Come, by Edward Self, is devoted to the consideration of the many important questions connected with European immigration to this country. Dr. Henry A. Martin, replying to a recent article by Henry Bergh, defends the practice of vaccination, citing official statistics to prove the efficacy of bovine virus as a prophylactic against the scourge of small-pox. E. L. Godkin has an article on The Civil Service Reform Controversy; Senator Riddleberger, on Bourbonism in Virginia; and General Albert Ordway, on A National Militia. Finally there is a paper of extraordinary interest on the exploration of the ruined cities of Central America. The author, Mr. Charnay, has discovered certain monuments which conclusively prove the comparative recentness of those vast remains of a lost civilization. The *Review* is published at 30 Lafayette Place, New York, and is sold by booksellers and newsdealers generally.

St. Nicholas for April opens with a charming frontispiece picture by Rosina Emmet, illustrating a timely poem by Mary Mapes Dodge, entitled an April Girl. Brigham, a Cave-dog, is an account of a clever animal that was lost in the Mammoth Cave of Kentucky, but found his way out after wandering for thirty-six hours among a maze of pitfalls and dark windings. Mrs. Abby Morton Diaz contributes The Story of Wangse Pah and the White Elephant, an illustrated sketch of Siamese life. Lord Malapert of Moonshine Castle is a bright comedy for children, by E. S. Brooks. It is easy to learn, not difficult to get up, does not require many speaking characters, and bids fair to be popular with our younger Thespians. The veracious legend of Mr. Weathercock is given by "Aunt Fanny" Barrow. Walter Satterlee has drawn four page-illustrations for some æsthetical stanzas, called Lament of the Cat-tail.

Dr. Eggleston's serial, The Hoosier School-boy, and The Recollections of a Drummer Boy, by Harry M. Kieffer, are brought, all too soon, to their conclusions, in stirring and spirited installments; and Donald and Dorothy have a grand good time in their House Picnic. The illustrated Northern Myth stories are continued with the legend of The Hoard of the Swarthy Elves.

Our Continent is a new weekly resplendent in dress, beautifully illustrated, and edited by Judge Albion W. Tourgee, author of A Fool's Errand, etc., which has recently made its appearance from Philadelphia. Six numbers have already been issued containing contributions from some of the most gifted American and foreign writers. The only doubt we have of the success of the new enterprise is caused by the apprehension that it is too good.

The *Atlantic Monthly* for April contains among others the following articles: Europe before the Arrival of Man, by John Fiske; An Echo of Passion (IX.-XIII.) George Parsons Lathrop; The Nixie

Maiden, by L. E. R.; Shakespearean Operas, by A. E. Barr; The House of a Merchant Prince (VI., VII.), by William Henry Bishop; A Modern Hindu Reformer, by Charles Wood; In Venice, by Constance Fenimore Woolson; Development, by A. E. Lancaster; Jacob's Insurance, by P. Deming; A Realistic Poet, by Philip Bourke Marston; Sunrise, by Albert Laighton; Doctor Zay (I., II.), by Elizabeth Stuart Phelps; Progress in Agriculture by Education and Government Aid (I.), by Eugene W. Hilgard; The Folk Lore of Lower Canada, by Edward Farrer.

Among the many noteworthy papers in the *Century Magazine* for April is Mme. Ragozin's Russian Jews and Gentiles. The writer is a Russian lady, now living in New York, and is the author of recently published papers on the Nihilists in the *International Review*. The reader is distinctly warned at the start, by a sub-title, that the paper is written from a Russian point of view. A reply to Mme. Ragozin is to be contributed to the May *Century* by Miss Emma Lazarus, who, in this number, has a significant paper, Was the Earl of Beaconsfield a Representative Jew?

The frontispiece of the number presents the strong, plain, and decidedly English face of Matthew Arnold, the original being the portrait by the painter G. F. Watts. This accompanies a biographical-critical study, by Mr. Andrew Lang, of Mr. Arnold's poetry and essays—the purely literary feature of the number. Of the serials: Mrs. Burnett makes a decided advance with her novel, Through One Administration. Mr. Howells's Modern Instance takes his young married people to Boston, touches lightly on the foibles of young married people in general, and introduces Bartley to Boston journalism, which is to figure largely in later parts of the novel.

The illustrated papers cover a good deal of ground. The third of Mrs. Mitchell's papers on sculpture is devoted to The Age of Praxiteles. The subject is treated in an expository way, and is illustrated with beautiful engravings by Cole, Kruehl, Miss Powell, Evans, Babcock, Shusler, and Tynan. More superb cuts of ancient art have probably never been made. The Hera Head, the two cuts of the Hermes, and the Demeter, are the most striking. Tunis and its Pey, by Ernest von Hesse-Wartegg, is a popular account drawn from personal experience. The appointment of M. Roustan as Minister of the French Republic to the United States will give an added interest to the subject, which is fully illustrated by H. Bolton Jones and Frank C. Jones, who, as artists, have also visited Tunis.

Lippincott's Magazine for April contains, In and about a Normandy Market-place (illustrated), by Margaret Bertha Wright; Disappointment, by Geo. Newell Lovejoy; Stephen Guthrie (a story, illustrated); Our Substitute for a Navy, by Charles F. Johnson, Jr.; Four-foot Prize-fighters (illustrated), by Felix L. Oswald; The Assistant Editor (a story), by Mary Ellsworth Myles; Captain William Kidd, by Charles Burr Todd; Puzzled, by Mary Ainge De Vere; New-Year's with the Ojibways, by Helen Campbell; A Bohemian (a story); Among the Gweldigion, by Wirt Sikes; Our Monthly Gossip.

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SYMMETRICAL EDUCATION.

SYMMETRICAL education is a theme of frequent discussion, yet it is one which we may profitably review. As the sediment of our gold mines when worked over again often yields additional treasure, so the consideration of this subject may be useful, although its presentation may require careful sifting in order to separate the precious ore from the crude matrix.

The object of education is the formation and maturity of an excellent human character, and the furnishing proper materials for its use and development.

The means of education are by no means confined to the school-room, but include all things which can influence the mind. A mother's look of love, a father's instruction, a brother's or a sister's generosity, the food and clothing of infancy, the plays of childhood, the routine of the seasons on the farm or in the town, views in the shop windows or in beautiful landscapes, playmates and school-fellows, teachers and ministers, schools and churches, the bustle of life and solitary musings, suggestions and influences from without and mental activity within—all things whatsoever, whether beautiful or ugly, of good or evil report, holy or depraved, which may affect in any way the human soul, form a part of its education.

In a more limited sense, education relates to the methods of culture in youth, and particularly in schools and colleges. In this sense of the word, the most important consideration is the character of the lessons which are imparted to the student. I know not but I may be charged with grave heresy in ex-

pressing the sentiment that the communication of knowledge is of more importance in our schools than the drill and training of the faculties. I may be reminded of the etymology of the word "education," from *educo*, to draw out, or to be treated to the ordinary protest against cramming, which is so often heard as a criticism on our public schools; yet I insist that education can never be completed by attempts merely to draw out the inherent qualities, or discipline the faculties of the human mind. Something must be put into the mind as well as drawn out of it, and before it can be drawn out, in any proper sense pertaining to the completion and furnishing of character. In other words, man requires proper tools for his work in life, as well as the strength and skill which are necessary to use them.

Sidney Smith well said: "The first thing to be done in conducting the understanding is precisely the same as in conducting the body—to give it regular and copious supplies of food, to prevent that atrophy and marasmus of mind which comes on from giving it no new ideas. It is a mistake equally fatal to the memory, the imagination, the powers of reasoning, and to every faculty of the mind, to think that we can live upon our stock of understanding; that it is time to leave off business and make use of the acquisitions we have already made, without troubling ourselves any further to add to them. It is no more possible for an idle man to gather a certain stock of knowledge than it is possible to keep together a stock of ice exposed to the meridian sun. Every day destroys a fact, a relation, or an inference; and the only method of preserving the bulk and value of the pile is by constantly adding to it."

The character and quantity of material needed in the work of education is a subject concerning which much diversity of opinion prevails. Although it really belongs to the practical teacher, yet it is a matter of regret that boards of school directors in many parts of the country undertake to regulate the curriculum, and often insist upon exercises which are better adapted to tax the memory than to inform the mind. The editor of the *Philadelphia Public Ledger* has recently given utterance to sentiments upon this subject which seem to me quite appropriate.

After referring to the complaint of a father who heard his child sobbing over some rules in arithmetic which he was compelled to memorize, he says: "There is a tendency through all public schools to look to the parrot-memorizing of a rule as the highest thing a teacher can get a scholar to do. A glib child with a ready ear and tongue can learn to rattle off any number of words set down, and such a child is not concerned in the least whether what it learns makes any sense at all. So that the rule is repeated in double-quick time, it is satisfied, and the teacher too. It gets a high mark. But the little thinker—and a few such unspoiled children are left in the schools—the reasoning child, insists in its own mind to understand what each line means. It cannot be glib, because *its mind* must *grasp* what is in the lesson.

" Between mere ear-and-eye scholars and the children with brains, what a race there must be in the rivalry to get this thing by heart! For this is the 'lesson' the child was crying over:

"Rule for Short Division, rule, dash, one : Write the divisor at the left

of the dividend, semicolon; begin at the left hand, comma, and write the quotient beneath, period. Paragraph 2. If there is a remainder after the division, comma, regard it as prefixed to the next figure, comma, and divide as before, period. If any partial dividend is less than the divisor, comma, prefix it to the next figure, comma, and write a cipher in the quotient, period. Paragraph 3. Proof, period, dash. Multiply the quotient by the divisor, comma, and add the remainder, comma, if any, comma, to the product, period.'

"Compared to this, even the old nonsense jingle, 'And she went into the garden to cut a cabbage-leaf to make an apple-pie,' and all the rest of the incoherent story, is clear and refreshing. That used to be set down in the book as something that could not be remembered, because it had no connection in its lines; whereas, every intelligent child, for a play and a *tour de force*, was bound to learn it, and generally did. The somebody that 'died,' and the other somebody that 'married the barber,' and the 'gunpowder that ran out at the heels of their boots,' all were picturesque and graphic nonsense, and so were pleasurable remembered. But what grown person, except a wooden teacher, could go over those rules in short division with the absurd jumble of *the pointing of the paragraph with the directions for division?* Not even Macaulay, who knew all his Lord Chancellors and almost all the Popes, could have faced that rule without shivering. But to the mind of a wooden teacher a comma in a paragraph means as much as any other part of it. We have heard of music rules that were taught in this way also, and that for a mistake in remembering *where a comma came in*, in defining a clef or any other part of musical notation, the child has been kept in, as though it had failed in some important branch of study.

"Precision and exactness are delightful; but pray, why are they not left until the child undertakes to apply the rule? There is no need for a rule in arithmetic to be memorized at all for *repetition*. The class should show by the slates or blackboard that it can apply the rule. That is the test of proficiency, and not getting the rule by heart. And if a teacher should complain that it then would get its applied rule by seeing how other children do it, or how the blackboard sum is done, instead of keeping all the processes by their wordy directions in its head, it is simply learning to calculate, as it learns to write the lines first, the meanings later. It is simply learning as every trade and every occupation was learned, in the good old days of apprentices and thorough workers—by seeing others do it first, and getting its reason later.

"Memory is a good pony; but if the pony is loaded with stones and rubbish, as well as grain bags, so that he cannot carry the sacks one furlong towards the mill, the result is not merely an idle pony and no grist ground: it is a broken-down pony, a cudgeled pony, and a pony worn out before its time. A broken-down little memory, a wearied and hopeless scholar, is the only outcome of such continued idiocy on the part of some teachers. If the fault is with them —this committing of commas to heart, the priceless period, the all-important semicolon, the absolutely invaluable and precious dash—they should be seriously revised and corrected by the gentlemen of the city who are responsible for the minds of all those school-children. If the fault is in the rules that these

teachers are given to follow, they ought not to stultify themselves by carrying out the nonsense.

"Not far off from these points of the school-compass was a conversation overheard lately in a horse-car, between two young teachers who were studying paradigms of pronunciation, or some such manual. They were audibly referring to a teacher or professor who had lately given a lecture or lesson. 'The position above the line,' said one, 'shows whether it is the first or second sound of a.' In other words, the phonic system is not only to be taught, but the child is to know by the position of a written letter how to say *ark* or *all*. But before the car had gone many blocks a discussion arose, which gives the whole beauty of the phonic system in its exaggerated form.

"How would he write *frum*?" said one of the young ladies, who evidently had a pronunciation of her own. 'O,' said the other, half correcting, 'I suppose he would call it *fromm* or *frome*.' Of what use, thought the writer, kindly wishing these good girls a better office than to be dotting a's off and o's according to sounds—of what use is the phonic system when one instructed proficient will call a dog a *dock*, and so mark it; and in the next school-house another equally proficient will be ranging all her A B C class in line to place it in some light as a *dooahog*? When a child in one division is made to mark its 'calm' with an *ah* sound, and then going into another class is sharply reproved for not making it *caem*, where will the phonic system come out? And what time is wasted while the child settles the immortal question—what sound of a letter shall be written on the board? The only way the writer sees to remedy all the wasteful and wild theorizing in the schools, is for the school board in every section to qualify for office by a month's lessons in the classes. When once twelve directors have had a trial of it, committing commas and dashes and periods to memory, along with every other hard rule, they will have a pretty good idea as to which teachers are qualified to teach. Possibly the young lady who was puzzling over *frum* was not a public-school teacher or a normal-school pupil. If not, there are more victims to this absolute waste of time. Teach a child at sight to call a spade a spade, without spelling it; but do not add to its difficulty in reading our irregular tongue by any phonetic rules. Let it learn can, pan, dan, ran, and all the rest; but do not stop it in the sequences to stand and deliver what sound of *a* these words contain. There must be an end to all this analysis for little children, unless the children are put an end to, so far as all spontaneousness, clearness, and use of their quick apprehension is concerned. Instead of facts—'where the pepper grows,' for instance—and all the instruction conveyed in the old 'Book of Commerce,' early in the day, the poor infant is kept dividing in platoons the two vowels in pepper. What an enlightened school director he would be who could write these *e's* phonetically, with their proper signs or place! And what a great help it would be in his business and daily life generally if he had learned to do this when young!"

I have made this long quotation for the purpose of illustrating the interest which thoughtful men in every section, having the welfare of the country in mind, feel concerning school methods. If I am not mistaken, the principle which lies at the base of all such criticism, and of much that will not bear as gen-

erous a construction as that editorial, is the growing conviction of the need of what I have called symmetrical education; i. e., the spontaneous improvement of body, mind, and heart. My limited time allows me only a glance or two at each of these departments of culture.

With respect to physical education, I have often thought that true symmetry has been much obscured by pet theories of specialists, who multiply gymnastic exercises and apparatus, and inculcate theories of calisthenic drill which are better adapted to an army of recruits than to the daily work of the school-room. Yet there is a growing disposition in the community to regard the teacher as so trained to the work of education as to be able to care for every part of his work, and he certainly has a better opportunity for the physical training of his scholars than can be found in separate families. William Blackie has well said: "The teacher has always a considerable number of scholars. He can encourage the slower by the example of the quicker; he can rouse the emulation, he can get work easily out of a number together, where one or two would be hard to move. If he rightly understood his power; if he knew how easy it is, by a little judicious daily work, to prevent or remove incipient deformity, to strengthen the weak, to form in the pupil the habit of sitting and standing erect, to add to the general strength, to freshen the spirits, and to do good in other ways, he would gladly give whatever time daily would be necessary to the work; while like most persons who try to benefit others, he would find that he himself would gain much by it as well."

As to the various subjects included in mental culture, it seems scarcely necessary to refer to memory, or comparison, or judgment, since these are in constant exercise by the very necessities of common-school studies; and the inordinate subjection of reason to memory has already occupied our attention in the long editorial from Philadelphia. But what of the emotions, the imagination, and the conscience? Are not these integral parts of our mental nature? And is there any systematic effort to properly train and control them?

Emotion has its seat, or center, according to the best physiologists, in the middle brain, or mesocephalon. It is excited both by mental and physical causes. Either the senses or a thought may produce emotions, and they, in turn, give rise to the subjective sensations or involuntary movements of the body. A thrill of horror or of joy, a shudder at sudden danger, or hysterical laughing, crying, sobbing, or choking, are instances of the immediate effects of emotion. The influence of the mesocephalon extends upward to the brain, backward to the cerebellum, downward to all the nerves of sensibility and motion, and by its connection with the sympathetic nerves to all the blood vessels of the body. It is no wonder, therefore, that uncontrolled emotion may derange all sensitive and motor acts, and the intellect itself, and produce such extraordinary movements as we see in hysteria, rage, or despair. Emotion plays a most important part in the formation of character, and should therefore be considered in all educational plans. It is associated with intellect, and our views of the world and of things largely depend upon it. Its different phases make one gay, another morose, one sluggish, and another impulsive.

The morbid imagination which is stimulated by sensational literature, and the unhealthy physical excitements fostered in modern life, especially in our great cities, produce an undue exaltation of polar force in the middle brain, and lead to a variety of subjective phenomena; as trance, catalepsy, mesmeric susceptibility, and modern spiritism. Acting in all directions, this emotional stimulus of the nerve center manifests to the consciousness whatever impulses may happen to be prevalent at the time, either in mind or body, and as its influence is greatest on the sympathetic nerves, their obscure or sensual impressions are especially prominent.

To this cause may be plainly traced the increase of insanity, especially on the Pacific slope. If it is important that a sound mind in a sound body should characterize the coming generation, our systems of education must provide for the control of the imagination and the emotions.

Conscience has sometimes been called the moral sense, or the moral faculty. Whether it be a single faculty, or a combination of faculties, it is that which produces in us ideas of right and wrong respecting actions, with corresponding feelings of approbation or disapprobation. This faculty, like all others, requires a right education. It should be trained, and enlightened also. As the eye may be perfect, and yet not see for lack of light, or if the light be tinged will see objects of the same color, so conscience requires a standard of moral truth. St. Paul was conscientious when consenting to the death of Stephen and the persecution of the early Christians, and many a man has committed great crimes in all good conscience.

The difficulty of adopting a standard of moral teaching in our public schools seems to me to be less than most people imagine. I am well aware of the diversity of creeds and the rights of minorities. While I hold that this is essentially a Christian government, made by Christian people on Christian principles, and that Christian citizenship demands a Christian culture for its youth, and should provide for the development of true Christian character, I remember also that the family antedates all civil governments and all church organizations. The family is the earliest divine institution on earth. The teacher holds a relation to the child *in loco parentis*. It is therefore his place to inculcate the essential truths of morality and religion which underlie all systems, as the primitive granite underlies the strata of the earth's crust.

If I am not mistaken, the School Law of California (Sec. 1700) acknowledges this principle, and instructs teachers to impress upon the minds of pupils the principles of morality, truth, justice, and patriotism, teaching them to avoid idleness, profanity, and falsehood. It certainly would not be difficult for a commission to arrange a number of unobjectional selections in a manual which should set forth these fundamental principles and the religious ideas upon which they are based, and which should be used as a standard text-book in the schools. There need be no sectarian teachings, but there must be an acknowledgement of God and man's responsibility to God. Since merit or demerit is not always visible to men, the sanctions of morality must depend on a divine law. Without this, society becomes a rope of sand.

The necessity of symmetrical education finds significant illustration in the

contrast of Garfield and Guiteau. Our late President and his assassin exhibit the tendencies of our civilization in opposite extremes. They were both born on the same plane, so far as the worldly circumstances of family and wealth are concerned, or if there was a difference it was in Guiteau's favor. Garfield, driving the canal-team along the towpath, presented a most unpromising prospect for future eminence and excellence. Yet what a divergence in their lives! One trained to labor, study, self-respect, subordination, religion; the other to egotism, vanity, self-assertion, conceit. One becomes an example of the good, and the other of the evil education rendered possible by the circumstances of the age in which we live. The spirit which led Guiteau to shoot the President lives in every hoodlum of our great cities. And this word "hoodlum" has come to mean just such a character as the trial has shown the assassin to have been. The conceit, the ignorance, the audacity, the rowdyism, which he exhibited, has its parallel in kind if not in degree in thousands of dead-beats, hangers-on about bar-rooms, and political bummers and strikers all over the land. They manifest the evil which our public schools were designed to remedy; while the true culture, self-poise, and Christian manhood of Garfield afford a model of excellence towards which our pupils should be taught to aspire. Never before in our history have the extremes of character been so manifest. Costly as the lesson has been to us, the contrast will be valuable if we learn it well. It teaches us how monstrosities are developed fit for all evil, and also how to train a symmetrical, manly character.

J. H. WYTHE, M. D., D. D.

Oakland, California.

THE CHARGE OF THE HEAVY BRIGADE.*

BALAKLAVA, OCTOBER 25TH, 1854.

THIE charge of the gallant Three Hundred, the Heavy Brigade!
Down the hill, down the hill, thousands of Russians,
Thousands of horsemen drew to the valley—and stayed.
For Scarlett and Scarlett's Three Hundred were riding by
When the points of the Russian lances broke in on the sky;
And he called, "Left wheel into line!" and they wheeled and obeyed.
Then he looked at the host that had halted, he knew not why,
And he turned half round, and he bade his trumpeter sound
"To the charge!" and he rode on ahéad, as he waved his blade
To the gallant Three Hundred, whose glory will never die,
"Follow and up the hill!"
Up the hill, up the hill followed the Heavy Brigade.

II.

The trumpet, the gallop, the charge, and the might of the fight!

Down the hill, slowly, thousands of Russians

Drew to the valley, and halted at last on the hight

With a wing pushed out to the left, and a wing to the right.

*The Three Hundred of the Heavy Brigade who made this famous charge were the Scots Greys and the second squadron of the Inniskillings, the remainder of the Heavy Brigade subsequently dashing up to their support. The three were Elliott, Scarlett's Aid-de-Camp, who had been riding by his side, and the trumpeter, and Shegog, the orderly, who had been close behind him.

But Scarlett was far on ahead, and he dashed up alone
 Through the great gray slope of men;
 And he whirled his saber, he held his own
 Like an Englishman there and then.
 And the three that were nearest him followed with force,
 Wedged themselves in between horse and horse,
 Fought for their lives in the narrow gap they had made,
 Four amid thousands; and up the hill, up the hill
 Galloped the gallant Three Hundred, the Heavy Brigade.

III.

Fell, like a cannon-shot,
 Burst, like a thunderbolt,
 Crashed, like a hurricane,
 Broke through the mass from below,
 Drove through the midst of the foe,
 Plunged up and down, to and fro,
 Rode flashing blow upon blow,
 Brave Inniskillings and Greys,
 Whirling their sabers in circles of light.
 And some of us, all in amaze,
 Who were held for a while from the fight
 And were only standing at gaze,
 When the dark-muffled Russian crowd
 Folded its wings from the left and the right
 And rolled them around like a cloud—
 Oh! mad for the charge and the battle were we
 When our own good red-coats sank from sight,
 Like drops of blood in a dark gray sea;
 And we turned to each other, muttering, all dismayed:
 “ Lost are the gallant Three Hundred, the Heavy Brigade! ”

IV.

But they rode like victors and lords,
 Through the forests of lances and swords;
 In the heart of the Russian hordes
 They rode or they stood at bay;
 Struck with the sword-hand and slew;
 Down with the bridle-hand drew
 The foe from the saddle, and threw
 Under foot there in the fray;
 Raged like a storm, or stood like a rock
 In the wave of a stormy day;
 Till suddenly, shock upon shock,
 Staggered the mass from without;
 For our men galloped up with a cheer and a shout,
 And the Russians surged, and wavered, and reeled
 Up the hill, up the hill, up the hill, out of the field,
 Over the brow and away.

V.

Glory to each and to all, and the charge that they made!
 Glory to all the Three Hundred, the Heavy Brigade!

ALFRED TENNYSON.

HINTS ON TEACHING SPELLING.

WHEN should pupils begin to learn to spell? There should be no oral spelling, or written spelling either, from memory during the first year and a half or two years of school life; yet pupils should be learning to spell from the start. How? By copying. By copying in script well-written sentences set by the teacher on the board.

Sometimes these sentences may be taken from the primer, but they should generally be the language of the pupils themselves, including certain words given by the teacher.

Assigning Spelling Lessons.—The teacher should not merely say, “Prepare the tenth lesson,” or, “Your dictation will be the first twelve lines on page 24.” The pupils should pronounce after the teacher the words of the lesson, looking at them carefully as they do so. Peculiar or difficult words should be written on the blackboard, and spelled simultaneously by the pupils, and hints should be given to aid in the preparation of the lesson.

Preparing Spelling Lessons.—We wish to teach the forms of the words, not their sounds. Unfortunately, forms of the words do not always agree with the sounds in English; hence the form of a word must be impressed on the mind through the eye and not through the ear. It is perfectly clear, therefore, that the art of making good spellers consists in teaching pupils to see words accurately. The London *Times* once said, “Spelling is learned by reading, and nothing but reading can teach spelling.” It may be accepted as a rule, that a good reader is always a good speller. These facts all point the thoughtful teacher to the conclusion that we have already stated—spelling depends upon the power of seeing with precision. It follows that the exercise which compels the pupils to look most carefully at words must be the best method of preparing a spelling lesson. Unquestionably, this exercise is transcription. Let the pupils copy on their slates the lesson to be prepared. The lesson may be prepared as a home exercise, if due care be taken by the teacher in examining both writing and spelling. This is necessary in order to compel scrutinizing attention to the words to be copied. The whole value of the exercise depends on this being done.

Repeating the letters of a word orally is of little lasting benefit. Make the pupils see the words, and, if possible, never let a pupil see a word wrongly spelled.

Testing Spelling Lessons.—There are only two methods, oral and written. The oral method alone is of very little practical value. An American writer records the case of a young man “who won three prizes at spelling-schools, but made five mistakes in spelling in a note written to a school board.” Oral spelling does not accustom the eye to the form of the word in writing. This is a fatal objection to it, and all modern teachers recommend that spelling lessons be conducted chiefly in writing.

Correcting Spelling Lessons.—They must be corrected thoroughly. If proper preparations have been made as recommended, very few errors will be

made. In a large class the teacher will not be able to examine personally the book or slate of each pupil, except in the case of review lessons consisting of words previously misspelled in the class. These should always be examined by the teacher. In other lessons, one of the following plans may be adopted :

1. The pupils exchange slates, and the teacher gives the correct spelling, word by word, the pupils marking those that are wrong.

2. Pupils retain their own slates, and different pupils are called on to spell the words. Those agreeing with the spelling indicate by raising the hand, before the teacher decides as to the correctness. Marking as before.

3. Slates are exchanged, and the corrections made as in No. 2.

While the teacher writes the correct spelling on the board, each pupil may correct his own work, and slates and books be exchanged for revision only. The latter method is probably the best with honest pupils.

In all cases where slates are exchanged, the pupil owning the slate should have the right to appeal against the marking done by his neighbor.

Reviews.—Each pupil should write correctly the words which he misses, about five times, to impress the correct forms on his mind. In addition to this, he ought to make a list at the end of his book of all the errors he makes. From this list the teacher should prepare his reviews. The words missed are the only words that need to be taught. “Leave no enemy in the rear.” Review regularly.

General Suggestions.—1. The teacher should always articulate clearly and pronounce correctly when giving words for spelling.

2. Never overstrain the enunciation of a word in order to indicate its spelling.

3. Allow only one trial in spelling orally or in writing.

4. In spelling orally, the divisions into syllables should be marked by slight pauses, but in no other way.

5. Do not assign lessons too difficult for the pupils who have to prepare them. This compels the pupils to spell badly.

6. It is desirable that spelling should be taught to a considerable extent by means of composition, in order to give the pupils practice in spelling the words in their own vocabularies.

7. In some of the dictation lessons, time may be saved by having only the words in italics spelled. The teacher should read the whole sentence and emphasize the word to be spelled.—*Literary Notes, Nebraska.*

ASKING QUESTIONS.

IN nothing does the primary teacher need to use more skill and carefulness than in asking questions of the little ones. By these a test of the pupil's progress should be offered, and also a means afforded for aiding him by explanation of the difficult portion of the work. Socrates showed what a great help to the mental processes the putting of questions might be made. They

awaken listless minds, they arouse an interest and delight in the work that no other means perhaps could do so well. We call the attention of teachers to this part of their work. We urge them to give a portion of careful thought to the subject of asking questions, asking such as will in themselves awaken and help the child in his work.

In connection with this subject, we commend to the attention of earnest primary teachers the following most excellent rules, given by the managers of the Model School, London, Eng., to their instructors:

"The questions and answers, when put together, should present the subject as a connected whole; hence questions should follow each other in logical order.

"Simple language should be used, such as will convey the meaning of the questions clearly to the pupil's mind; hence every question should be definite.

"It is not wise to tell a *part* of the answer, such as the first word, or any other part of it.

"Questions which require a simple *yes* or *no* as an answer should be avoided.

"The minds of all the class should be kept at work; the answers should not be taken from a few only.

"Wrong answers should be frequently noticed; they point out where the teacher's attention is wanted. The class should be questioned into the right answer; not told it.

"Care should be taken to ascertain whether the answer given to a question shows a clear and distinct idea; if not, further explanation should be given, and more questions put. A few ideas clearly and distinctly worked into the minds of the children are better than many misty and indistinct ones.

"The language of the answers ought to be good; inaccuracies should be pointed out, and answers which are only partly correct rectified.

Central School Journal.

THE TWO GRENAIDIERS (OF HEINE).

RENDERED BY GEO. GOSSMAN, A.M., AND ADAPTED TO MUSIC BY PROF. C. VAN GUILPEN.

FROM Russian prisons two grenadiers
To France their slow way were wend-
ing;
And when arriving in German domain,
In sorrow their heads were bending.

For here they both heard of the sorrowful
news,
That France had been sadly forsaken;
Her armies defeated, and gone was her
power,
And the Emp'r'or—the Emp'r'or was taken.

Then, weeping together, the grenadiers
O'er news so suddenly learning,
One, sobbing, said: "Oh, woe is me!
How sorely my wound is burning!"

The other said, "The game is up;
I'd die our cause defending;
But I have wife and child at home
On my support depending!"

"Who cares for wife, who cares for child?
I cherish a higher ambition.

Let them beggin' go, if they hungry be
I think of my Emp'r'or's condition.

"Oh, grant me, brother, this request,
For now of grief I'm dying;
Oh take thou my body to France with thee,
Where many a brave is lying.

"The cross of honor on my breast,
With scarlet ribbon resting,
My musket true put in my hand,
My sword my waist investing.

"Thus will I lie so quiet and still,
Entombed a sentry be staying,
Till I shall hear the cannon's roar,
And war-horses stamping and neighing.

"Then surely my Emp'r'or will ride o'er my
grave
When swords are clashing and bending,
And then shall I rise full-armed from my
grave,
My Emp'r'or, my Emp'r'or defending."

A HOODLUM.

CHAPTER V.—LEARNING TO READ.

TERM after term many a child goes to school, wearing out the teacher's patience and the first pages of his primer, until the words on the latter are beyond even the teacher's recognition.

With mind unawakened, and with eyes half of the time off the book, he says the words after the teacher, and feels when he has said his lesson that a disagreeable but necessary task has been done.

He makes but little progress in learning to read; and the teacher says the boy is dull, and the boy says the teacher isn't a good one. How little time the average first-reader pupil gets may best be shown by an account of a visit the writer made several years ago to a primary school-room in Santa Barbara. A class of thirteen boys and girls was called up to read. The entire class read by turn the same line and a half (and the last one read it about as poorly as the first); then the class counted in concert to ten, and were dismissed to their respective seats; and they probably thought they had had a reading lesson. Yet the teacher had the reputation of being a good primary teacher, and because many of the children could not finish the first-reader work in the two years given to that grade, it was thought a sufficient excuse when she said that she was overcrowded with an average attendance of about forty pupils.

Forty pupils are far too many for any school-room, especially a primary room; for *beginners need individual attention*. Class work is not enough. If the proper amount of individual attention is given in the right way, five months is long enough for an ordinary six-year old child to learn to read every word in the first reader reasonably well, and to spell at least ninety per cent. of them correctly on a final examination. Not only should he be able to read the pieces in his reader, but he should be so independent of others' help that he could read the simpler stories of the *Nursery*, for example, with understanding and pleasure. A real bright child of ten years old can do the above work in two months or even less. It took Donald less than that time; but he had all the individual attention he needed. Carl made the lessons alive with interest. He trained Donald's eyes to perform their work quickly and accurately, and

tried to establish, as it were, a broad-gauge line of communication between the organs of sight and of speech. While Carl gave Donald constant encouragement, he stopped a lesson when the boy grew weary; and, by his manner, led Donald to regard it as a favor to be allowed to read to him.

Having quite a number of first readers and easy story books, Carl was able to give Donald a better graded series of reading lessons than any one reader contains. Carl also tried to observe a natural order in his teaching, keeping rigidly to no single method, but trying to use the best parts of several methods.

Nowadays, most leading educators claim that the phonic method is the only true, advanced method; and analyses and syntheses of cats and rats are fed in daily doses to all properly taught first-reader pupils. Very beautiful in theory is the phonic method, and probably most children can finish the first reader in from one to three years if taught by the phonic method; and they will be wise in macrons and breves, and in the parts of the rats and cats. There is but one trifling objection to the phonic method, and that is our abominable spelling that we persist in retaining. If our alphabet and our orthography could only be revised, the phonic method would be the true one. But now the boy starts with *cat* on the first page of Appletons' First Reader (which series is the orthodox *cat*-echism of the Phonicians), and learn the orthodox sounds of *c*, *a*, and *t*. After awhile he finds that *c* is woefully heterodox in *cell*, *child*, *machine*, *ocean*, and dozens of other words; that it is not orthodox in the very next word he learns on the same page; and as for *a*, that is simply an infidel of the most not-to-be-depended-upon character—now long, now broad, then short, then silent, and ever dependent upon the company it is with for the noise it makes in the world. The truth is, that the child ever learns the sound of the letter from the combination, and not the combination from the sound; and analysis and synthesis of words for first-reader pupils is simply *humbug*. They can be learned; it is well to learn them; but neither the first reader nor the second reader is the place for that work.

An invariable name is better for the child to associate with the letters of the alphabet than a variable sound. The sounds of the various combinations of letters he learns because they are words familiar to him for years. Without direct instruction, he learns to associate the sounds of the letters with the letters as found in those combinations. But, practically, the spelling of nearly half of the words of the first reader must be learned, word by word, as so many separate facts. Donald learned to spell at the same time he learned to read. He read and re-read the lessons, and spelled the words many times after he could spell them well. This gave him a readiness which nothing but repetition can give. If Donald could not make out a new word, Carl would generally spell over the word aloud, somewhat rapidly dwelling upon the important letters a little, and then Donald could often pronounce the words without further help. He soon learned to do this rapid spelling for himself, and thus became in a great measure independent of help, which is always an end to be desired.

But some one may say, "The phonic system does this very thing, and in better shape for new words."

So it would if the sounds did not depend so much upon the combinations. Saying over the letters of a combination brings to mind the sound of that combination or of a similar one, and with that remembrance comes the power. But facts are better than theories, and I have invariably found that first-reader pupils taught properly by the alphabetical method did better on new pieces than those taught by equally good teachers who used only the phonic method.

Carl always required Donald to repeat the lesson he had read—to tell in his own language what the piece said. This strengthened the memory and stimulated the boy's attention. Carl also tried to have Donald read a little ahead of words he was pronouncing, in order to secure greater evenness and truer inflections of the voice. Attention was also given to the correct position of the organs of speech, so as to secure a clear and true enunciation. Dramatic reading was encouraged, and appropriate gestures were sometimes made. At first Carl would simply present models of reading to be followed as closely as Donald could imitate them; but after some time the reasons why were also learned.

Carl laid great stress upon the amount of reading done, and on review days would sometimes have thirty or forty lessons read at one exercise. Of course so great an amount could not be read from want of time in most schools; but if the smaller pupils would read more and have less of some other lessons, it would be better for them. Carl also encouraged Donald to talk about the reading lesson, and criticise any part of it; and he always listened to "what I would have done if I had been that fellow," and gently tried to moderate the brag and bluster that most smart boys are so fond of. Carl also tried to impress Donald with the fact that while these primary readers were not worth reading for the matter they contained, they were necessary steps to books valuable to read for their own sakes. All good reading should instruct and elevate the mind. Most poetry and some prose were intended to appeal to the imagination; other books were intended for mental discipline; and others as records of knowledge. Among works of imagination were to be found many books unfit to be read, serving no useful purpose, but poisoning the mind, and unfitting it for higher and better reading. Stories where pirates figured as heroes, where bloodshed was a synonym for bravery, where evil was pictured in alluring colors, and life was feverish and unreal—such reading had no place at Camp Comfort. Not that Donald was forbidden to read these stories; but their character and the results of such reading were pictured so plainly before his mind that he felt no desire to read them. Carl believed it to be even of greater importance to learn what to read than to learn how to read, and trashy writings found little favor in his eyes.

There is still another class of books forbidden alike by law and good morals which Carl had never cautioned Donald against, for he had not supposed it possible for him to get one of them. But one day he came upon the boy when Donald was busily engaged in reading one of the vilest of obscene books.

Hearing Carl's step, Donald looked up, and then hastily tried to conceal the book.

"Let me see the book you were reading, Donald," said Carl gravely.

"Pedro told me not to let you see it," faltered Donald.

"And do you think more of Pedro's wishes than of mine?" asked Carl.

Donald reluctantly handed the book to Carl, who looked at it a moment, and then handed it back to Donald, saying: "I don't want to read such a book, Donald. I would advise you to put it away now, and we will talk about it after supper."

At supper-time Pedro, a Spanish boy about sixteen years old who was working on a trail over to the quicksilver mines, came into the house. After the supper dishes were washed, Carl went to the bookcase, and taking down a medical work, he showed the boys the pictures of those loathsome diseases caused by sexual indulgence, and explained the evil effects of such indulgences in the plainest ways he could. Then he spoke of the many who were now suffering the pains of their wrong-doing, and would so continue to suffer until they died. Lastly he spoke of the obscene books which pictured these vices in alluring colors, and failed to speak of their certain effects.

Then, as he laid the book before Pedro, the latter rolled it up hastily, and thrust it into the stove, saying as he did so, "That is the place for so bad a book."

"I hope I will never get to look like Mr. —— that you told us about," said Donald earnestly. "It always sickened me to look at him; but I never knew what ailed him before."

"You will always have to pay a heavy price for evil pleasures, Donald. The price Nature asks is always far more than they are worth, and you cannot escape paying the price."

Then he told the boys what laws and penalties there were to try to suppress the sale and distribution of such books as the one Pedro had burned, and finally he turned to Donald and said: "My boy, if you wish to do anything that you think I would not like, always come to me and ask about it; and if I cannot show you it is wrong, so that you will not desire to do it, you then have my consent to do as you like about it."

Which would have been a rash promise for most people to make.

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COMPOSITION.

NEVER tell a child to "sit down and write a composition." Gather a class of little people around you; hold up an object—a fruit of some kind, a bunch of flowers, a nut, a cotton-pod, a toy animal, a picture—anything on which you or they possess facts; talk and ask questions for ten minutes. Let them write what they have thus learned, and if they desire, other facts you have not touched upon.

If you want to excite their inventive or imaginative powers, give them a

list of words—begin with three or four—choose words that have some connection, of course ; ask the children to write the most interesting sentence they can, combining these words. Increase the dose for older pupils. This exercise is admirable for a blackboard : you can then see all errors in spelling, punctuation, etc. Moreover, it rests the children after they have been sitting.

I gave the first class one line in Adams' Speller for an exercise of this kind. One child only brought every word into her essay. Some were obliged to leave out one, others two, some three. The girls had previously defined all the words, and were required to show in this way their knowledge of the proper use of them. I considered it a difficult exercise.

Read a true story to the children, and let them write what they remember. It adds to the interest, if you talk to them five minutes : ask them questions. I would *always* give children their "subjects." The teacher can best judge what they can write about. It's a great trouble; but *sometimes* they have special interest in some subject; then, of course, it is best for them to choose.

What subjects would I choose ? A very little child could describe all the parts of her body, and their uses. She could describe her dress, piece by piece, or her play-room at home, or tell about the children in the nursery, or write about a tea-party, or her birthday presents, her garden, her bird, or her brother's pets.

Older children can take such subjects as these: "What do I wear?" "What do I eat?" "How should we set a table?" "How sweep a room, make beds, get breakfast, make bread?"—or anything that they are old enough to have practiced. Some girls are more domestic in their taste than others, therefore I should give certain subjects to certain ones. It adds to the interest of reading them if there is a variety.

After any special study has claimed attention, such as natural history or botany, let the class write an essay. I gave the subject, "I am fearfully and wonderfully made," after a delightful review of physiology. The trouble was there was *too much to say*, and we were in danger of having a *book* written.

Compilation is useful; for instance, after a chapter on "Sublimity in writing," occurring in rhetoric, I would have the class *bring in specimens*—they would probably go to the Bible for them. Require six or eight more if there is time to hunt them out; make them tell why they class them under that head; have the girls criticise them. This *selecting* is an excellent exercise.

Let them select metaphors, comparisons, personifications, interrogations, numerous specimens; and show that they understand them. Don't neglect the imagination. (This is heresy, but I can't help it.) Let them describe what kind of house they would like to live in, how they would furnish a sitting-room, what they would have on the dinner-table, how they would dress a doll, and be very careful that they are *honest*; and don't let them say what they *think* they ought, to please their teacher. If they dress their dolls in drab, you may be sure something is wrong. Such is the deceitfulness of the

human heart! When you let them write little stories, have a point. One child will write a story to illustrate obedience; another, generosity, truthfulness, industry, selfishness. If they can draw from their own experience, very well.

A good way to deal with tardy minds, is to furnish with the subject a skeleton of the proposed essay. For instance:

How PEOPLE LIVE.—“Contrast wealth with poverty.” “Contrast a neat home with one neglected.” “Differences in building—mode of life.” “Describe the Indians, Esquimaux, Chinese, any nations.” “Speak of the difference in the way people live, in respect to happiness.” “Tell what spirit should pervade a home.” “Contrast two homes.” “Describe your own.”

If the teacher be hard pressed for time, one subject thus taken will do for the class. If not, each child will have one. Thus more interest is felt when the essays are read.

A word about reading and correcting. It is well to read the compositions aloud. If there be a glaring fault, name it, or ask the class to criticise. But we must be careful of the feelings. To some it is a serious matter to be exposed thus. I prefer making the composition division as attractive as possible—not a time to be dreaded.

Take the books home. Read carefully, mark each error with No. 1, No. 2, etc. At the end make your remarks. No. 1 deals with the first error; No. 2 with the second, etc. After all corrections give a few of praise or blame as the case may be; notice kindly any improvement; scold the careless; have endless patience with the dull. These little personal notes do more good than one might think.

Occasionally speak to them, as some errors cannot so well be corrected in writing. Another thing, give them *time* to write. I was often *desperate* when a school-girl, because I had a full measure of study, and composition besides. Have a variety in subjects. One time give a description of any small common object—a hair-brush, a pencil, a thimble, anything. Again, let them write such a description, and withhold the *name* of the object. Where the word has several meanings, this makes a very good enigma. A tongue, for instance—tongue of a wagon, of a shoe, of a Jew's-harp, of an animal—the children like to guess.

Again, let them criticise a verse of poetry, or a whole poem. Or let them turn poetry into *good* prose. Let them take any picture, and describe it accurately and interestingly.

One year I had an editor. Each girl, except the editor, took the same subject. A common proverb, such as “Time and tide wait for no man.” “A burned child dreads the fire.” Each girl brought in her composition. First, she gave six reasons for the *truth* of the proverb. Then came illustrations—some drawn from natural history, some from history.

The editor took all the compositions, selected the best of the reasons, the best illustrations from natural history and history, compiled a new essay, and made a very clever thing of it. The editor's work being arduous, she was excused from any original efforts. The office changed each week.

ENGLISH SCHOOLS IN THE HAWAIIAN ISLANDS.

BEFORE speaking directly of the English schools, a few words about the people of the Islands will not be amiss. For the purposes of this article they may be divided, according to the races, into three classes.

It is well known that the missionary societies of America are wont to send out only men and women of ability and culture. And it is equally well known that those who forego the pleasure of civilized society, and go on such missions, are possessed of great force of character. The missionaries to the Hawaiian Islands were in no way exceptions. They were graduates from the best Eastern colleges and seminaries. Their sturdy characters are indicated by the work which they undertook; their ability is proved by what they have done. Such men and women, while engaged in educating an inferior race, could not neglect their own children. Accordingly schools were established for them in the Islands. Many of them were sent to America and some to Europe to finish their schooling. The fathers have passed away or ceased from activity; but the sons, recruits sent to the mission, including a delegation sent out by the English Church, and a few successful adventurers, are the influential men of the kingdom. They are prominent as merchants, planters, teachers, and in various other callings. Many of them hold important offices in the government. In addition to these the Portuguese and the Scandinavians, of whom nothing else need be said at present, are the principal representatives of the Caucasian race.

The Mongolians differ from those in America in one respect, and for this they require some notice; many of them, having married native women, are supporting their families and educating their children.

The Malay race is represented by the Gilbert Islanders and the Hawaiians. The former bear so strong a resemblance to the latter that they need not be separately considered. But a more extended notice of the Hawaiians may not seem out of place. It is for them that the English schools are conducted. To an American one of their most striking characteristics is the want of energy. This is made noticeable by the manner of living. While they can find themselves with the plain, simple food of their forefathers, together with such clothing as is necessary to their comfort in this climate, they give themselves no trouble about the future. Since they can do this by working a small part of their time, they have a great deal of leisure for indolent enjoyment, which they do not often forego. Yet, with all of their idleness, they have neither general almshouses nor beggars. They are good natured, obliging, pliant, and, as pupils, tractable. But these qualities seem to be the offspring of natural love of ease. They yield rather than resist. Illiterate persons are very rare exceptions; but the common education includes but little of practical worth beyond reading and writing; and one who speaks their language can have no great difficulty with these. The language is agglutinative and almost phonetic. There are fifteen elementary sounds at the most, and there are twelve letters, no two of which ever represent the same sound. Every syllable ends with a vowel.

After this preliminary view of the people most intimately connected with them, the English schools themselves claim attention. Neither the idea nor the practice of teaching the Hawaiians English is by any means new; but schools conducted for them in the English language exclusively are quite a recent innovation. In consideration of the worth of an extensive literature, the board of education is increasing the number of these as fast as practicable, that all may enjoy their advantages. They are attended chiefly by natives and half-castes, the latter being for the most part the children of Chinamen or Portuguese men. When they enter these schools they seldom know anything whatever of the English language. It often happens that the teacher is equally ignorant of the Hawaiian, and, indeed, it is a moot question whether or not this is best. Here the teacher's ability to apply his Pestalozzian principles is put to a severe test. The difficulties encountered are almost enough to shake the faith and belief in the system commonly known as the "Natural Method" of teaching languages. All conversation on the part of the pupils must be very badly crippled until at least twenty-five new sounds have been learned.

Those who have troubled themselves over German *ch* and *we* will not doubt that twenty-five new sounds constitute no small difficulty. Besides these there are various combinations, particularly two consonants in one syllable, and the consonant at the end of a syllable, which are entirely new to the Hawaiian tongue and ear. And it must be remembered that a discriminating sense of hearing is no small consideration in the acquirement of new sounds. Herein is one of the most glaring defects in the Hawaiian make-up. This is probably the result of the extreme simplicity, with respect to sounds, of their native language; but it is none the less a difficulty to contend with. The English teacher may forget that it was ever hard for him to distinguish the sounds of *k* and *t*, *g* and *d*, *l* and *r*, etc.; but his pupils will not fail to remind him of the fact. Yet he need not expect them to make the distinctions without much more drill than he ever required. The writer has found it no easy matter for some of his pupils to pronounce the simple word *cat*; and they are not strictly beginners.

But these are only what may be called the physical difficulties; the intellectual (allow the designation for the present) are often greater. The Hawaiian language is not inflected; hence, the idea that endings may indicate properties of words and the idea of agreement, are altogether new. While this is no small matter, there is probably a greater to follow: in the native language there is no verb *to be*. This fact, with all that it involves, is certainly a very serious obstacle to overcome. And the English idioms are by no means easy to one who does not speak even a cognate language.

In addition to all of their hindrances, the English language for Hawaiians is the language of the school-room and of literature only; they rarely use it in conversing with one another. This evil, though not apparently necessary in the nature of the case, is nevertheless unavoidable. All things considered, it is not surprising that success comes very slowly.

The foregoing may seem to give a discouraging view of the teacher's work in the Hawaiian Islands; but it is not intended to make the work appear

agreeable or otherwise, but only to present a general outline of what is to be done in the English school. Many of the teachers would not accept similar positions in America. But there is one discouragement, with which this article will close: the race is dying out; the teacher labors for the present generation.

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FRACTIONS FOR BEGINNERS.

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MULTIPLICATION OF FRACTIONS.

THE learner must keep in mind that it is the office of the numerator to count the parts which make up the fraction, while the denominator has merely to show what kind each part is, or what is its comparative value.

(a) *To Multiply a Fraction by a Whole Number.*

RULE.—The given numerator multiplied by the whole number will give the numerator of the product, the denominator remaining unchanged; or, keeping the numerator unchanged, the given denominator divided by the whole number will give the denominator of the product.

$$\text{Example (1).— } \frac{2}{9} \times 4 = \frac{2 \times 4}{9} = \frac{8}{9}.$$

Note.—The denominator (9) merely gives the name, magnitude, or value of each of the fractional parts. Now, 2 of the given parts (9ths) taken 4 times will make 8 such parts.

$$\text{Example (2).— } \frac{7}{12} \times 6 = \frac{7}{12 \div 6} = \frac{7}{2}.$$

Note.—Here the number of parts remains the same, but the magnitude or value of each part is increased six-fold (1-half being formed of 6-twelfths); consequently the value of the fraction $\frac{7}{12}$ has been increased six-fold. From cases like the two last, it is easy to see that "Multiplying the numerator or dividing the denominator multiplies the fraction; and, conversely, dividing the numerator or multiplying the denominator divides the fraction."

(b) *To Multiply by a Fraction.*

In its literal sense, it is as absurd to speak of multiplying by a fraction as of multiplying by a line. Like the latter, however, the expression is retained in common use on account of its brevity and convenience. By its nature a fraction necessarily involves the operation of dividing; and hence, when we speak of multiplying by a fraction, we tacitly include the idea of division as well as that of multiplication. The operation is clearly a compound one.

While it is evident that we cannot literally take a quantity of land, or money, or anything else three-fourths of a time, we may divide the quantity into four equal parts, and take one of these parts three times; or we may, as

before explained, divide three times the quantity into four equal parts, and take one of these parts for the so-called product. It is, then, in this limited sense that the expression "multiplying" by a fraction is to be understood.

Example (1).—How much is $\frac{3}{4}$ of $\frac{5}{7}$?

$$\frac{1}{4} \text{ of } \frac{1}{7} = \frac{1}{28}; \quad \frac{1}{4} \text{ of } \frac{5}{7} = \frac{5}{28}; \quad \frac{5}{28} \times 3 = \frac{15}{28}, \text{ Ans.}$$

Or,

$$\frac{1}{7} \times 3 = \frac{3}{7}; \quad \frac{5}{7} \times 3 = \frac{15}{7}; \quad \frac{15}{7} \div 4 = \frac{15}{28}.$$

Again,

$$\frac{5}{7} = \frac{20}{28}; \quad \frac{3}{4} \text{ of } 20 = 15; \quad \therefore \frac{3}{4} \text{ of } \frac{20}{28} = \frac{15}{28}.$$

These operations may be abridged thus:

$$\frac{5}{7} \times \frac{3}{4} = \frac{5 \times 3}{7 \times 4} = \frac{15}{28}.$$

The contracted method is stated in the following

RULE.—"Multiply the numerators together for the numerator of the product, and multiply the given denominators together for the denominator of the product."

The foregoing results may perhaps be rendered clearer by operating on a unit of surface, as ABCD.

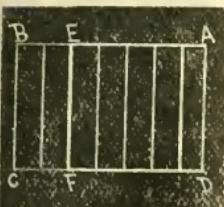


Fig. 1.

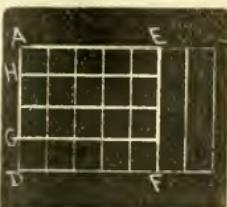


Fig. 2.

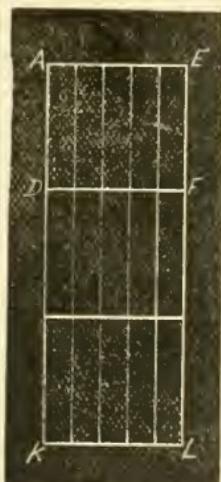


Fig. 3.

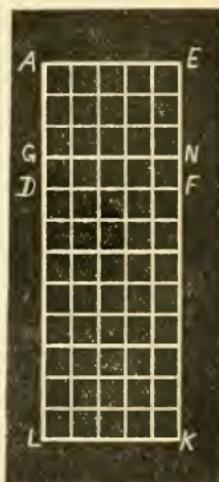


Fig. 4.

Example (2).—Multiply $\frac{5}{7}$ by $2\frac{3}{4}$.

Note.—We might multiply $\frac{5}{7}$ by 2, and then add to the product $\frac{3}{4}$ of $\frac{5}{7}$ in this way, $\frac{5}{7} \times 2\frac{3}{4} = \frac{5}{7} \times 2 + \frac{5}{7} \times \frac{3}{4} = \frac{10}{7} + \frac{15}{28} = \frac{40+15}{28} = \frac{55}{28} = 1\frac{27}{28}$.

By reducing the mixed number to an improper fraction, the trouble of adding the partial products may be avoided.

$$2\frac{3}{4} = \frac{11}{4}; \quad \frac{5}{7} \times 11 = \frac{55}{7}.$$

Now, as 11, the multiplier here taken, is 4 times $2\frac{3}{4}$, the given multiplier, the product obtained ($\frac{55}{7}$) is four times too large. Hence, $\frac{55}{7} \div 4 = \frac{55}{28}$ is the required product. The work abridged will stand thus:

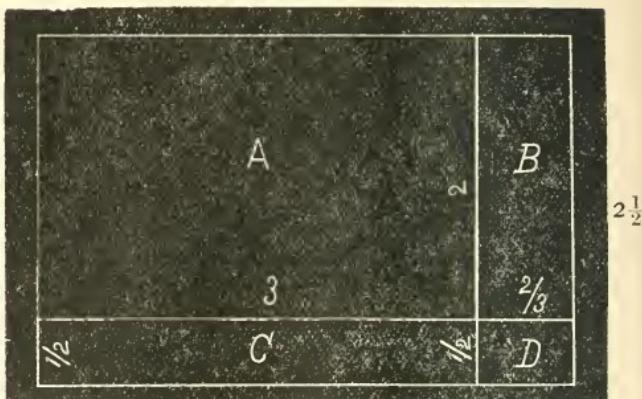
$$\frac{5}{7} \times 2\frac{3}{4} = \frac{5 \times 11}{7 \times 4} = \frac{55}{28} = 1\frac{27}{28}.$$

Example (3).—

$$3\frac{2}{3} \times 2\frac{1}{2} = ?$$

$$1 + 1 + 1 + \frac{2}{3}$$

Note. — We may take the length of a rectangle to represent* one of the given factors, $3\frac{2}{3}$, and its breadth to represent the other, $2\frac{1}{2}$. Lines having been drawn as in the diagram, the whole figure made up of the rectangles A, B, C, D, will represent the required product.



$$3\frac{2}{3}$$

$$A = 3 \times 2; B = \frac{2}{3} \times 2; C = 3 \times \frac{1}{2}; D = \frac{2}{3} \times \frac{1}{2}.$$

$$\text{Hence, } 3\frac{2}{3} \times 2\frac{1}{2} = 3 \times 2 + \frac{2}{3} \times 2 + 3 \times \frac{1}{2} + \frac{2}{3} \times \frac{1}{2} = 6 + \frac{4}{3} + \frac{3}{2} + \frac{2}{6} = 6 + \frac{8+9+2}{6} = 6 + \frac{19}{6} = 9\frac{1}{6}.$$

We may, therefore, obtain the product of two mixed numbers by taking the sum of the partial products obtained by multiplying the whole numbers together, multiplying the given fractions together, and multiplying each of those fractions by the whole number in the other factor.

This method is seldom the easiest way to multiply mixed numbers together; but it has been given because it serves in some degree to illustrate a very important principle; namely, that if two factors be each divided into any number of parts, the product of the factors will be the sum of the partial products obtained by multiplying *all* the parts of the multiplicand by the several parts of the multiplier.

Taking again the same examples, we may more easily perform the operation in this way:

$$3\frac{2}{3} \times 2\frac{1}{2} = \frac{11 \times 5}{3 \times 2} = \frac{55}{6} = 9\frac{1}{6}.$$

Note (1). — Instead of the multiplicand $3\frac{2}{3}$, we use 11, which is 3 times too large; and, instead of the multiplier $2\frac{1}{2}$, we use 5, which is 2 times too large. The product 55 is therefore 6 times too large, and consequently the required product is obtained by dividing 55 by 6.

(2) In managing fractions, it must not be forgotten that, no matter what it may be termed, the number below the separating line is really a divisor.

[The usual rules for the multiplication of fractions or mixed numbers may now be given.]

* The product of three factors may be represented by a parallelopiped; of more than three, by a combination of parallelopipeds.

Example (4).— $\frac{1}{4} \times \frac{5}{7} \times \frac{2}{3} \times 11 = ?$

$$\text{Operation: } \frac{1 \times 5 \times 2 \times 11}{4 \times 7 \times 3 \times 1} = \frac{110}{84} = \frac{55}{42} = 1\frac{13}{42}, \text{ Ans.}$$

Example (5).— $2\frac{2}{3} \times 1\frac{5}{7} \times \frac{3}{4} = ?$

$$\text{Operation: } \frac{8 \times 12 \times 3}{3 \times 7 \times 4} = \frac{288}{84} = \frac{36}{14} = 3\frac{3}{7}, \text{ Ans.}$$

Note.—Under the head *Cancellation* we have seen that, without altering the quotient, equal factors may be stricken out from the dividend and divisor; hence they may in like manner be stricken out from the numerator and denominator of a fraction.

Canceling the factors 3 and 4, the work in the last operation will stand thus:

$$\frac{8 \times 12 \times 3}{3 \times 7 \times 4} = \frac{2 \times 12}{7} = \frac{24}{7} = 3\frac{3}{7}.$$

H. J. BYRNE.

SAN FRANCISCO IN 1816.

A CATALOGUE of California plants shows frequently, after the high-sounding Latin names, the name of Chamisso, the man who first described them. Few of our readers know who the man was, or how he happened to name them. And yet the man's name is dear to all German-speaking nations, who revere in him one of their greatest poets; but have almost entirely forgotten that he was an eminent botanist.

Louis Charles Adelaide de Chamisso de Boncourt, or, as he also preferred to call himself in German, Adelbert von Chamisso, was born in Boncourt, France, in 1781. During the French Revolution his parents had to leave France, and after long journeyings, settled at Berlin, where young Chamisso succeeded in getting an appointment as page to the Queen of Prussia. Afterwards he entered the Prussian army; but devoted himself more and more to philosophical studies and to German literature. He left the army in 1808, commenced to publish poems which attracted general attention, and in 1812 matriculated, when 32 years old, at the Berlin University as a student of botany. In 1815, together with Eschscholtz and Choris, he accompanied Captain von Kotzebue, commander of the Russian man-of-war Rurik, on a scientific tour around the world, from which he returned in 1818. He was professor of botany at the Berlin University, and member of the Royal Academy of Sciences at the time of his death, in 1838.

He visited San Francisco in 1816, and of what he saw here at that time he has given the following account in his "Voyage Round the World":

"On the 2nd day of October, 1816, at four o'clock in the afternoon, we entered the port of San Francisco. A great bustle is noticed in the fort at the southern entrance of the strait. They hoist their flag; we show ours, which does not seem to be known there, and salute the Spanish flag with seven guns. They are returned according to the Spanish regulations with two guns

less. We cast anchor off the Presidio; no boat leaves shore to come to us, because Spain owns not one boat on this beautiful bay.

"I received orders at once to accompany Lieutenant Shishmareff to the Presidio. Lieutenant Luis de Arguello, acting commander after the death of his captain, received us with the greatest kindness; at once supplied what the Rurik needed most by sending fresh fruit and vegetables on board, and on the very same evening sent a courier to the Governor of Nueva California, at Monterey, to inform him of our arrival.

"The next morning (October 3rd) I met Don Miguel de la Luz Gomez, lieutenant of artillery, and a Padre of the San Francisco Mission, who came to the ship while I was on the way to the Presidio by order of the captain. I saw them on board. They were charged with the kindest offers of assistance by the commander and the still more powerful Mission. The Padre, too, invited us to the San Francisco Mission for the following day, the day of the patron saint, saying that we would find saddled horses ready for us.

"In consequence of a hint of the captain of the Rurik, we were at once furnished fresh meat and vegetables in abundance. In the afternoon our tents were pitched on shore, the observatory and the Russian bath in them. Eight guns were fired from the Presidio in honor of the captain.

"But the captain did not care for this superfluous politeness, but for the two guns which they still owed the Russian flag; and he insisted on their being fired, with the greatest stubbornness. Long deliberations were held on the subject, and it was only with great reluctance, and probably in consequence of the order of the Governor, that Don Luis Arguello condescended to fire the two remaining guns afterwards. One of our sailors, too, had to be sent to the fort to mend the line to hoist the flag; for the line had broken the last time they hoisted their flag, and among the natives nobody was found who could climb up the flag-pole.

"Our captain succeeded here, as well as in Chili, in getting the commander and officers to accept his hospitalities. We dined on land under cover of a tent, and our friends from the Presidio did not fail to put in an appearance. This relation was almost a matter of course. The misery which they endured, forgotten and forsaken by Mexico, their mother country, did not permit them to be hospitable, and the desire to talk of their sufferings brought them to us, with whom they could associate at their ease. No money had arrived for them from Spain for years, and they spoke with great bitterness of the missionaries, who lived in plenty, and would furnish nothing without their notes, and even then only the most necessary things—no bread, no flour—for they were living on corn, without having seen any bread for years. Even the garrisons which are stationed at the missions for their protection, were with difficulty provisioned by the Padres, and only on giving promissory notes. 'The gentlemen are too good,' said Don Miguel, alluding to the commander; 'they should force them to furnish us provisions.' One of the soldiers went even a step farther, and explained to us that the commander would not allow them to go across the bay to capture Indians for slaves, as they did in the missions. Moreover, a great deal of dissatisfaction was created by the fact that Don Paolo

Vicente de Sola, the new Governor at Monterey, since he had entered upon his office, was opposed to smuggling, which had been their only means of procuring the necessities of life.

"On the 8th of October the courier returned from Monterey. He brought a letter to the captain from the Governor, who announced to him his early arrival in San Francisco. At the request of Mr. Von Kotzebue, Don Luis de Arguello had been ordered to send a courier to Port Bodega to Mr. Kuskoff, and to him the captain wrote, in order to procure from his flourishing trading post, several things which had given out on board the Rurik.

"This Mr. Kuskoff, agent of the Russian-American Company, had settled down at Bodega by order of Mr. Baranoff, the chief of all these posts in America, in order to provision from that place, all the posts of the company. But Bodega, about thirty miles north of San Francisco, was considered by Spain, not without some apparent right, to be Spanish territory, and it was on Spanish soil, therefore, that Mr. Kuskoff with twenty Russians and fifty men from Kodiak had built in times of peace a little fort, armed with a dozen guns, and was farming there with plenty of horses, cows, and sheep, a windmill, etc. There he kept a stock of goods for the smugglers of the Spanish ports, and from there he had his Kodiaks catch several thousand fur-seals every year off the California Coast, which were sold, accordingly to Mr. Choris, who was in a position to be well informed, at thirty-five to seventy-five piastres in Canton. It was a pity that Port Bodega could admit only ships drawing less than nine feet of water.

"I can fully understand that the Governor of California was in a rage when at length he heard of this settlement. Several steps were taken in order to induce Mr. Kuskoff to leave the place; but to all requests of the Spanish officials his only answer was, that Mr. Baranoff had sent him there, and he would be very glad to obey Mr. Baranoff's order to leave Bodega, in case they would obtain an order to that end from him. This was the state of affairs when we came to San Francisco. The Governor was now hoping for our intervention.

"On the 9th of October several Spaniards were sent across the bay to catch horses with the lasso for the courier that was to be sent to Mr. Kuskoff, and I took this opportunity to look around there. The year was already far advanced, and the country which is said to resemble a flower garden in spring-time, presented only dried-up grounds to the botanist. In a swamp near our tents, a water-plant was said to be in bloom, about which Eschscholtz inquired when we left. I had not seen it; but he had felt sure that a water-plant, one of my well-known favorites, would not escape me, and he did not care to get wet feet on account of it. Such things we may expect from our best friends.

"On the 15th of October the courier that had been sent to Mr. Kuskoff returned, and on the evening of the 16th the firing of guns from the Presidio and from the fort announced the arrival of the Governor from Monterey. Shortly after a messenger came from the Presidio to beg the assistance of our doctor, as two men had been seriously wounded during the firing. Eschscholtz went at once.

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"October 26th, in the morning, the diplomatic conference took place at the Presidio. Don Paolo Vicente de Sola, Governor of Nueva California, asserted the incontestable claim of Spain with regard to the territory occupied by the Russian settlement of Mr. Kuskoff, and demanded of him to evacuate the territory occupied contrary to international law. Mr. Kuskoff, agent of the Russo-American Mercantile Company, and chief of the settlement at Port Bodega, without touching the point of law as none of his business, showed the greatest willingness to leave Port Bodega as soon as his superior, Mr. Baranoff, who had sent him there, would order him to do so. Then the Governor demanded of Mr. Kotzebue to interfere in the name of the Emperor, and to effect the evacuation at Bodega. The lieutenant of the Imperial Russian navy and captain of the Rurik, Otto von Kotzebue, declared himself to be without authority to act in a case where, in my opinion, the point of law was so clear that it was but necessary to express it in order to acknowledge it. And thus we had just arrived at the point from which we started.

"The claims to this coast by Spain were as much disregarded by the English and Americans as by the Russians. Spain considered the mouth of the Columbia to be her territory. The Americans went there from New York, partly by land and partly by sea, and founded a trading post. During the war between England and America the frigate Raccoon, Captain Black, was sent there to take the colony. But the English merchants in Canada went there by land, and as the man-of-war appeared outside of the port to take the place, they succeeded in getting the post at the price of £50,000, and hoisted the English flag. A road is said to connect Columbia with Canada. "Relata refero."

"Our time of staying in California had passed. On the 26th of October—a Sunday—after a ride to the Mission, a farewell *fête* and dinner was given in our tents. The artillery of the Rurik accompanied the toast to the alliance of the two monarchs and their peoples and the health of the Governor. One good missionary dipped his mantle too deep into the juice of grapes, and bore its burden with difficulty.

"On the 28th our tents were folded and sent on board. While we were signing the official report of the conference, which I had to sign "*en clase de interprete*," Mr. Kuskoff had sent out two *baidars* to catch seals in the bay, not without the knowledge of Mr. Von Kotzebue. The former made me a present of a beautiful seal-skin, which you may still see in the zoological museum in Berlin, to which I have presented it.

"On the 29th Mr. Kuskoff left with his fleet for Bodega, and later the same day our good Don Paolo Vicente de Sola left for Monterey. On the 30th all the animals were taken on board, and also vegetables in abundance. At the same time a great number of flies came on board, which filled the air. We took in fresh water, which is a difficult task in this port, especially in summer. To the kindness of the Governor we were indebted for a keg of Monterey wine. Our friends at the Presidio dined with us on board the Rurik.

"On the 1st of November, 1816, on All-Saints' Day, we weighed anchor at nine o'clock in the morning while our friends were in church. We saw

them arrive at the fort when we were passing it. They hoisted the Spanish flag, firing one gun. We hoisted ours in the same manner. They then fired seven more guns, which we returned gun for gun.

The water of the port of San Francisco is highly phosphorescent, and so was the outer bar of the bay. I have investigated the water in the bay with the microscope, and found in it rare, extremely small animalcules, to which I cannot but ascribe the phosphorescence.

Every day in port we gazed at the fantastic play of the clouds of mist, which, driven east over the bright sunny land, spread and dissolved. Exceedingly beautiful was the spectacle the clouds had prepared for us at our departure, now concealing and now unveiling the hills and the shores of the coast.

H. SENGER.

San Francisco Girls' High School.

EDITORIAL DEPARTMENT.

WHERE TEACHERS ARE AT FAULT.

THE rock which threatens our school system with disaster is the radical difference between the community and teachers on the subject of salaries. This journal has often and forcibly shown how illogical is the position taken by the community on the subject. It may not be amiss now to point out that the stand taken by teachers is but little more reasonable.

The community deludes itself with the idea that it can obtain first-class teaching at third-class rates; quite a decided minority of teachers argue and hold out for first-class rates for third-class teaching.

If the people were left to their own sober judgment, if newspaper demagogues and buncombe politicians, did not succeed in detracting their attention from real abuses to imaginary evils, there would be a decided tendency, in California at least, to pay teachers all they are worth. It is the interference of an ignorant press and the corrupt political "machine," on the one hand, and the scarcely less pernicious influence of an unprogressive, indifferent, and mercenary body of teachers on the other, that has brought on this irrepressible conflict.

The teachers insist on salaries commensurate with the high character of the work of education and its vast importance to the community. A fictitious public sentiment insists on paying the whole body no more than the few journeymen in it can really earn.

In blaming teachers for their share in this tearing-down of the system, we do not blame all, nor even a majority. But it is a strong minority, especially in our cities, who are responsible for the decadence of that professional spirit and that indifference to educational progress, which are such active auxiliaries to the enemies of a broad culture for the masses.

Our country teachers are, as a rule, more independent, more studious, more industrious, more public-spirited, more professional, than their city brethren.

They read more, take more interest in the great questions of the day, are less wedded to obsolete methods of teaching, are always more ready to learn something bearing upon their work and likely to improve them as teachers.

It will be observed that all movements for tearing down the system or curtailing its usefulness originate in the cities. An examination will disclose that the press of our cities and larger towns, always starts the cry of cramming, and machine-work, and mental overwork. All reduction of salaries begins in cities, and the tendency there for some time has been downward; while in the country, on the whole, it has been in an opposite direction.

History shows us that as all great civilizing currents originated in the great centers of population, so did all the disintegrating movements which destroyed empires, or diverted the stream of civilization. In our own day, we see our cities operating on the country in a manner precisely similar. And it will readily be seen that the principle is especially true in education.

Our city teachers, though they are in every way peculiarly favored, are, as a class, not what they should be. Their salaries are yet higher than those of country teachers. Their hours of work are fewer, the work itself lighter, their recreations are more numerous. Yet only the minority read or study; a small minority only, and those the cream of the profession, read educational literature. We know dozens of city teachers whose salaries range from fifteen hundred to two thousand dollars a year, to whom it never occurs to take an educational journal, and who never read a line of educational literature, unless it comes in the shape of examination questions in some borrowed journal. Now, will not our readers agree with us that the educational ship must sooner or later founder with such barnacles clinging to its sides? Can good be expected to come out of such Nazareths? When the educational system of a State has four or five such stagnant pools within its borders, is it not too likely that the miasma will poison the whole system?

We say these things in no captious spirit. We call attention to disease so that the afflicted may, if possible, apply an effective remedy. What this remedy is, every intelligent teacher knows. It is to devote herself, with an eye single to her school-work, preparing every exercise as she requires her pupils to prepare them. It is to read ahead of her pupils, keeping up with the advance of science, the progress of discovery, the revival of art, the social, political changes the world is every day undergoing. It is to study the science of education, and to keep up, by faithfully reading educational journals, with the advance of education and the newest methods of teaching.

We have not a single word to say here for our own journal. These lines are written with not the slightest reference to it. We ask neither city teachers nor country teachers to subscribe. They need the JOURNAL more than it needs them; and every word here written is in behalf of the thousands of innocent little children that should be trained to be good and capable men and women.

THE ELECTIONS THIS FALL, AND THE COUNTY SUPERINTENDENCY.

IN a few months the people of this state will elect an entirely new set of governmental officers, both State and county. As an educational journal, our periodical should not and need not concern itself with the general tickets.

But in the selection of educational officers, the city and county superintendents of the State, we have a direct interest, and shall exert all the influence in our power to aid and recommend faithful and competent public servants, and expose the incompetent and dishonest.

There is no question more interesting and important to trustees and teachers than this of the superintendency. In city and country alike, as is the superintendent, so is the teacher; and like teacher, like school.

Every teacher and every trustee well knows how great is the influence of an efficient superintendent in contributing to a successful school. The people and the children know he is around; that he thinks of their school; that he is interested in their progress.

This journal has always been interested in the maintenance of a thoroughly efficient superintendency. It has regarded the office as one of the chief pillars on which our school system rests. The superintendent should be a man of culture. He should, moreover, be an honest man—honest, not in the narrower meaning of being correct in pecuniary matters, but in the broader sense of a conscientious devotion to the duties of his office, excluding other pursuits; not making the superintendency subsidiary to other occupations, or using it as a stepping-stone to more lucrative political positions. As this journal has contended before, so say we now—educators for educational positions.

There are many superintendents in this state who are intelligent, honest, thoroughly competent, and successful in raising the standard of their schools. Some there are who are indifferent, lazy, and whose time and thoughts are occupied with matters foreign to the cause of education.

In the course of the next few months, it will be our privilege, and a duty we owe to the public, to discuss the work of the men who have had the school supervision of the State. In the mean while, we invite correspondence from teachers and trustees. We shall be glad to hear from the people, learn what their schools are doing, and how they regard the work of their respective superintendents.

A FULL NUMBER.

OWING to the large number of interesting contributed articles in this issue of the JOURNAL, we are compelled to defer the publication of several departments until our June number. Some of our papers this month are replete with interest and instruction. Dr. Wythe's paper on "Symmetrical Education," while we cannot agree in his point of the relative value of disciplinary and information studies, is a valuable contribution to educational literature. His argument on the importance of the training of the emotions and the imagination, is especially forcible and timely. The chapter on "The Hoodlum," by C. M. Drake, will well repay perusal. Mr. Drake's papers are always pointed, and full of valuable practical suggestions. In this chapter his remarks on the "phonic system" are peculiarly happy.

Those teachers who seek for articles on methods of teaching will find a number of well-timed and excellent papers in this issue. The "Hints for Teaching Spelling," and the paper on "Composition" may be closely followed in school-room work.

Our "Official Department" in this number is more than usually full, and is replete with interesting decisions from the State Superintendent.

We have been compelled to omit this month some interesting educational intelligence from the counties of the State. In Marin County there has been a lively institute, presided over by the ever-active and efficient superintendent Augustine. From Monterey County there were some readable notes from superintendent Shearer. We have records of marked progress in Los Angeles, Butte, Tehama, Santa Clara, and other localities. We believe these notes will still be fresh and readable when presented to our readers next month.

The new books sent for review will also be noticed at that time. We must here note specially the announcement of the appearance from the press of A. L. Bancroft & Co. of Prof. C. W. Childs's (of the Normal school) series of Topical Charts of United States History, Geography, and Physiology. These charts and their accompanying manual will prove of inestimable value to every school in the land. The chart of United States history, together with Harper's Cyclopedic of United States History, by Dr. Benson J. Lossing, which should be placed in the school library to accompany it, will supply a want to which teachers have often given utterance. They will find that with Professor Childs's chart upon the wall, and the cyclopedia accessible to their pupils, the history of our country will prove one of the most fascinating and useful studies in the course. The best series of text-books for teaching German to English-speaking pupils has just been issued from the press of A. S. Barnes & Co. of New York. The author is Dr. J. H. Worman, and the system is well styled "the Natural System." These books, as well as a number of others, will be fully reviewed in the June JOURNAL.

The Dixon Crucible Company have, for some months, advertised in our paper their offer to award \$275 as prizes for the best drawings done in our schools. We fear that the offer has not attracted in California the attention it merits. While drawing is prescribed in the State School Law, and drawing-books are adopted in all the counties of the State, yet the teaching of the subject has not been systematized, and the progress made is imperceptible.

It is possible that under the stimulus of such offers as that made by the Dixon Crucible Company, teachers and pupils both may be induced to more systematic efforts, and more general interest aroused in the subject.

OFFICIAL DEPARTMENT.

SUPERINTENDENT FREDERICK M. CAMPBELL, EDITOR.

STATE AND COUNTY MONEY.—A County Superintendent asks: "Can any portion of the State or County school moneys be drawn for building purposes?"

Under no circumstances can any portion of the *State* money be so drawn or used. *All* the State money, except the ten per cent. reserved for district school libraries, must be applied *exclusively* to the payment of the salaries of teachers of primary and grammar schools. (See section 1,622, Political Code.)

The *county* money as well as the State money must also be exclusively used for the support of schools, until an eight-months school has been maintained.

If, at the end of a year during which an eight-months school has been maintained, there is an unexpended balance of county money, it may be used for "any of the purposes named in this chapter" (section 1,621), and among the purposes so named is building school-houses.

This subject was discussed at some length in this department of JOURNAL for July, 1881, page 295; also in the August number, same year, page 334.

NUMBER OF TEACHERS TO BE EMPLOYED.—The law does not compel trustees to employ more teachers than are necessary to do well the work of the district, no matter for how many teachers money is apportioned. The word "teachers," as used in section 1,858, is merely for convenience, and means simply "seventy census children."

NON-RESIDENT PUPILS.—Concerning the attendance upon school in one district of children residing in another district, the law is as follows (section 1,617, subdivision 15, Powers and Duties of Trustees): "To make arrangements with the trustees of any other district for the attendance of such children in the school of either district as may be best accommodated therein, and to transfer the school moneys due by apportionment to such children to the district in which they may attend school; and in case the trustees fail to agree, the parents of such children may appeal to the superintendent, whose decision shall be final."

This provision of law is not confined to the districts of the same county, but the same agreement may be made between adjoining districts of different counties. In case, however, of a disagreement between the trustees of two such districts, the appeal by parents would have to be made to the superintendents of both counties.

CONCERNING SCHOOL MONEYS.—In a certain district a special tax of \$1,000 was voted for building a school-house; the contract was let, and the building erected. The levy, as made by the supervisors, yielded but \$750. The questions asked are: First, Can not the supervisors order the tax to be collected the second year without another vote? Second, Have not the trustees a right to give a district note to raise the \$250, and would not the district be bound by the action of the trustees?

First—The Attorney-General has held, in a somewhat similar case, that it will be necessary for another vote to be taken to enable the supervisors to levy a tax for the difference between the amount levied and the amount collected this year.

Second—I know of no provision of law authorizing the trustees to issue evidences of indebtedness against the district. Such would be a very dangerous power to vest in any board. Section 1,623 forbids trustees from contracting indebtedness in excess of the school money accruing to the district for the school year in which the contracts are made.

The only way in which the debt can be paid is by voting a special district tax, or it may be paid from any balance of county funds remaining on hand at the end of the year, *provided*, an eight-months school has been maintained.

STATE BOARD.—At a meeting of the State Board of Education, held April 1st, 1882, life diplomas were granted to the following persons:

Irene A. Anderson, Alameda Co.	Hamilton Wallace, Monterey Co.
Mary L. Wheeler, "	Fanny Ward, Oakland City.
Nellie M. Givens, Butte Co.	Ella J. Elliott, San Francisco.
Levi P. Downing, "	Evander J. Gillespie, San Jose.
Edwin Swinney, Contra Costa Co.	Lottie F. Grunsky, San Joaquin Co.
Helen M. Stone, "	Una Paulk Johnson, "
Violanta S. Ransdell, Lake Co.	Anna Stewart, "
Sampson H. Butterfield, Los Angeles Co.	Frank D. Baldwin, Santa Cruz Co.
Chloe B. Jones, "	Hattie L. Barham, "
Helen E. Holland, "	Edith Z. Roache, "
Martha M. Hewes, "	Sarah G. Ellsworth, Solano Co.
Delight Swift Lee, "	Oscar J. Willis, "
Virginia P. S. Zumwalt, "	

Educational Diplomas were issued to the following:

Mrs. Modena I. Scott, Alameda Co.	Louise Brandt, San Francisco.
T. Herbert Gibson, Calaveras Co.	Mrs. Susan H. Bigelow, "
Blanche Schrack, "	Maggie D. Blackstaff, "
Geo. T. Myrick, Colusa Co.	Carrie R. Bunker, "
Charles J. Walker, "	Mrs. Josephine Love, "
Wm. A Kirkwood, Contra Costa Co.	Alice E. Lynch, "
George H. Longnecker, Butte Co.	Mrs. Amelia M. North, "
George A. Kellogg, Humboldt Co.	Rebecca J. O'Donnell, "
George D. Murray, "	Nettie C. Stallman, "
Violanta S. Ransdell, Lake Co.	Ida R. Strauss, "
Chas. W. Moores, Los Angeles Co.	Mary E. Traynor, "
Ida Squires, "	Jane Arnett, San Joaquin Co.
Emily Vose Wright, "	Josie A. Baxter, "
Jennie M. Hammond, Monterey Co.	Everett C. Dickenson, "
Kate A. Perry, "	Belle Bird, Santa Clara Co.
Josephine Lemon, Oakland City.	Hattie E. Turner, "
Mrs. Lucy Anna Walker, "	Mrs. Josephine Knowlton, Santa Cruz Co.
Fanny Ward, "	Mrs. Clara B. Olmstead, "
Mrs. Hetty A. Dunn, Sacramento Co.	Carrie Pardee, "
Bertie Van Guelder, "	Mrs. Isabel Rogers, "
Caroline G. Hancock, "	Luther W. Frick, Solano Co.
Lily Banks, San Francisco.	Olin W. Grove, "

DISTRICTS CANNOT BE HELD.—A teacher asks: "Shall I have a legal claim upon either the trustees or the district for the excess of time I have taught beyond that for which the public money to the credit of the district will pay?"

I fear you will not. Section 1,623, Political Code, provides that "boards of trustees are liable as such, in the name of the district, for any judgment against the district for salary due any teacher on contract, and for all debts contracted under the provisions of this chapter, and they must pay such judgment or liabilities out of the school moneys to the credit of such district; provided, that the contracts mentioned in this section are not in excess of the school moneys accruing to the district for the school year for which the contracts are made, otherwise the district shall not be held liable."

STATE DIPLOMAS.—Will county superintendents please observe in recommending for State Diplomas—

1. That for each person recommended a separate resolution-blank must be filled out.
 2. That the name must appear upon the recommendation *exactly* as it is desired to have it appear upon the diploma.
 3. That the recommendation must bear the seal of the county board.
 4. That the certificate upon which the diploma is asked must accompany the application.
 5. That the full *first* name of the applicant must be given; e. g., *Mary E. Smith*, not *M. E. Smith*.
 6. In the case of married ladies, the wife's *own* first name should be given, and not the husband's; e. g., *Mrs. Mary E. Smith*, and not *Mrs. John H. Smith*.
- The diploma is intended for no other than this identical Mrs. Smith, and not for future use in the family in case of accident.

VERBAL OR WRITTEN CONTRACT.—It is only when the teacher has a *written* contract with trustees that he has the right of appeal to the superintendent in case of dismissal before the expiration of the time for which he was engaged. Section 1,678, Political Code, is clear on this point.

PUBLIC FUNDS AND PRIVATE SCHOOLS.—A trustee writes as follows: "Our district is about thirty miles long by twenty wide, and the school-house is located in one end of the district. We maintained an eight-months school, and have some surplus money. Mr. B—, who lives in the other end of the district, has a private school, at which seven of our scholars attend. Last winter a licensed teacher taught his school. Mr. B— now asks for a part of the money. Shall we give it to him?"

I can find no provision of law which authorizes any such proceeding.

It is certainly a novel proposition, and one which, if acted upon in accordance with the request of Mr. B—, and such action established as a precedent, would lead to a sad condition of confusion, if not of utter chaos, in public school matters.

But even if we were inclined to make such a disposition of the public funds, or any part of them, we are prevented from doing so by a plain provision of the State Constitution. Sec. 8 of art. IX of that instrument reads as follows: "No public money shall ever be appropriated for the support of any sectarian or denominational school, or any school not under the exclusive control of the officers of the public schools."

TEMPORARY CERTIFICATES.—A superintendent asks: "Can the County Board of Education grant a temporary certificate, valid until their November examination, upon a certificate to expire this summer?"

I can find nothing in the law to prevent the granting of the temporary certificate, under the circumstances named.

The certificate upon which the temporary is asked is in force now, and the

question as to whether it will expire before the examination or after it, cuts no figure, so far as I can see, inasmuch as it will be, in either case, by reason of holding the *temporary* certificate, that the teacher is eligible to take a school and draw salary, and not on account of holding the *original* certificate.

DIPLOMAS—EXPERIENCE IN TEACHING.—It is not necessary that the experience in teaching required to be had by applicants for educational or life diplomas should all have been in this State. It is necessary, however, that an applicant claiming an experience, part of which was in another state, should present to the local board entirely satisfactory proof of such experience, and that it was successful experience; the mere statement of the applicant is not sufficient.

Moreover, the board should be fully satisfied of the worthiness in all respects of the applicant before passing the resolution of recommendation.

The certified copy of the resolution of recommendation is, to the State Board, *prima facie* evidence of the worthiness of the party recommended, and is the paper filed as the voucher for the diploma issued.

DIPLOMAS OF GRADUATION.—The only provision of law concerning the granting of diplomas of graduation from the public schools is subdivision seventh of section 1,771, Political Code. It is therein said: "Diplomas shall be issued only to pupils who have passed an examination prescribed by the County Board of Education." It is in the hands of the board to determine what the examination shall be, how it shall be conducted, and by whom. In some counties the principal reports to the board, through the superintendent, the names of those whom he thinks to be entitled to receive diplomas, and the board appoints one or more of its members a committee to visit the school and examine those recommended, the examinations being conducted partly in writing, and in part, orally.

In Merced County, those recommended by the principal for graduation must meet the board at the time and place of holding the teachers' examination, and must obtain a certain per cent. upon the papers prepared for the teachers in some of the branches.

PAYING DISTRICT LIBRARIANS.—An order on the library fund is drawn by school trustees upon a superintendent in favor of a young lady, resident of the district, for services as district librarian; and the question is, Shall the superintendent draw a requisition? No! I can find no law which authorizes trustees to pay the librarian of the district library, and this is the first instance which has come to my knowledge of even an attempt to do so.

Section 1,617, Political Code, defines the powers and duties of trustees. Subdivision seventh of this section gives them power, and makes it their duty, "to employ teachers, janitors, and employees of schools; to fix and order paid their compensation," etc.

Now, "district librarians" might be included in the general term "employees of schools" as used in the foregoing, and the power thus be given to trustees "to fix and order paid their compensation," were it not for subdivision eleventh of the same section, which gives them power simply "to appoint district librarians"—omitting all mention of compensation. The naming of "district librarians" in

a subdivision of itself, carefully omitting all mention of compensation instead of including it among the employees whose compensation the board may "fix and order paid," clearly indicates that the legislature intended the librarian to serve without compensation.

It is an evidence of a very loose reading of the law on the part of the trustees who drew the order, that it was drawn upon the library fund; for, if it could be paid at all, it could not be paid from that fund, because section 1,712 provides that "boards of trustees must expend the library fund in the purchase of school apparatus and books for a school library," and no part of the fund can be used for any other purpose whatever.

PLenty OF MONEY BUT NO TIME.—A superintendent writes as follows: "Should I allow a bill to be paid out of the county fund for insuring a school-house, before an eight-months school has been maintained? The district has money enough for an eight-months school, but as they did not commence in time, they will not have time enough to keep eight months before July 1st. Now, in order to get the benefit of some of their money that would otherwise be re-apportioned, they have gone on and insured their school-house, and the trustees' order is in my hands."

When you ask my opinion upon a question of school law, of course it can be given only in accordance with the strict letter of the law; and no matter how strongly the conditions surrounding any particular case might suggest a more liberal construction, it is not for me to advise officers to a deviation from the provisions of law as plainly expressed in the Codes.

Section 1,621, Political Code, provides that "trustees must use the State and county money *exclusively* for the support of schools for that year, until at least an eight-months school *has been maintained*; if, at the *end* of any year during which an eight-months school *has been maintained*," etc.

In the case of the district referred to in your letter, there is money enough to the credit of the district to maintain an eight-months school, but owing to tardiness in opening school, there is not time enough to keep school so long this year.

A refusal on your part to pay the order for insurance cannot now, it is true, secure to the children of the district a longer term of instruction than to the end of the year, and the object of the law, as expressed in section 1,621, was to prevent trustees, having money enough from State and county to keep an eight-months school, from closing at the end of six months, and using the money so saved for purposes for which the district should itself raise money.

The only difference is that this board of trustees took the time from the other end of the term. It would be a dangerous precedent to establish, that the object of the law could be defeated in this way.

It is certainly a wise precaution to insure the school building, and it having been insured, the premium ought to be paid in some way; but you yourself must be the judge as to whether you can take or should take the responsibility of honoring the order now in your hands.

I remember a verdict in a certain church trial: "Not guilty, but don't do it again." Also an opinion given by an ex-Attorney-General of this State upon a question of apportioning school money, to this effect: "You may do it this time, but don't make a practice of it." I am hardly prepared, however, to cite either of these cases as a precedent.

CHANGE YOUR TRUSTEES.—A patron of the schools asks: "If trustees persist in hiring a certain teacher, against the wishes of at least four-fifths of the patrons of the school, what redress have we?"

You have the same redress that we have in the case of other *servants* of the people who mistake their position for that of *masters* of the people—retire them at the next election.

ORDERS ON DISTRICT FUNDS.—I am inclined to believe from the wording of the subdivision to which you refer (subdivision third of section 1,543), that you cannot enforce the requirement of itemized bills accompanying trustees' orders, when the latter are drawn against a fund raised by special tax upon the property of the district. Whatever may have been the intention, it is specially provided that itemized bills shall accompany all orders "against the county fund of any district," and it can be enforced only so far as that fund is concerned.

The most that you can require is that the order shall show the purpose for which it is drawn; for that is the only way in which your requisition drawn upon the order can be made to show it, as required by the subdivision and section just named; and, moreover, that the order may be a proper voucher for the requisition which is drawn upon it, they should be identical as to the purpose for which they were drawn.

OFFICIAL BLANKS.—Our revised order lists upon which superintendents may order blanks were sent out some time ago, and we have been busy filling orders. A few superintendents have not yet made their orders, and second notices have been sent to such.

It is hoped that no inconvenience to any districts will result from the tardiness of county superintendents in sending for the blanks necessary to the transaction of school business as required by law.

SCIENCE RECORD.

THIS RECORD is under the editorial charge of Prof. J. B. MCCHESNEY, to whom all communications in reference thereto must be addressed.

BEFORE repainting a building, apply a coat of crude petroleum with a fine white-wash brush, and let it dry two or three weeks; then put on one coat of paint. A second painting is rendered unnecessary, and that much money saved.

SOME of the New York physicians are discussing the question whether ice from the surface of an impure body of water is itself impure and containing the germs of disease. There is a popular impression that the freezing of water purifies it; but the scientific men who are giving attention to the subject generally dissent from that theory.

THERE is to be exhibited in Boston within a short time a machine, which originated in Scotland, that is said to accomplish wonders in cutting stone. A bit of our hardest granite of any size can be shaped with the ease that a cheese yields to the manipulations of a knife. Boston parties have an interest, and granite-cutters particularly will be interested in this new invention.

PROFESSOR HUTCHINSON has, in one of his lectures, mentioned a very interesting fact ascertained in Berlin. Among Roman Catholics, who prohibit marriages between persons who are near blood relatives, the proportion of deaf-mutes is one in 3,000; among Protestants, who view such marriages as permissible, the proportion is one in 2,000; while among Jews, who encourage intermarriage with blood relatives, the deaf-mutes are as one in 400.

THE uses of paper, like the development of electricity, seem to be endless. In Berlin some of the restaurants and cafés have adopted plates made of paper for serving bread and butter, rolls, cakes, buns, and similar articles. It is probable that further use may soon be made of so safe and cheap a substitute for pottery. In the restaurants of Holland the pretty serviettes of thin paper, which the public take away if they please, have been long used.

ALTHOUGH considered mute, insects have the power of producing sounds by certain movements which, to some extent, are characteristic of the different species. The shrill chirp of the cricket is produced by the rubbing together of the wing cases. The harsh shriek of the grasshopper is caused by friction of the legs against the wings. The shrill trumpet-sound of the mosquito, and the busy hum of bees and flies, result from the rapid motion of the wings while flying.

PROFESSOR JAMES GEIKIE holds that "the construction of the Panama Canal will have as much effect upon the Gulf Stream and the climate of north-western Europe as the emptying of a teapotful of boiling water into the Arctic Ocean would have in raising the annual temperature of Greenland." The Isthmus of Panama would have to be submerged not less than 800 to 1,000 feet before the waters of the Gulf Stream could find their way into the Pacific Ocean.

IMITATION AMBER.—Considerable quantities of beautiful objects of artificial amber are now being produced in Vienna. The substance employed in its manufacture is chiefly colophony, or resin, obtained by decomposition of turpentine, though several other ingredients are used to give it the requisite qualities. The imitation is said to be perfect, and the production has even the electric properties of amber. Ingenious manufacturers have even introduced into the substance foreign bodies, insects, etc., to make the similarity more striking. Natural amber requires a temperature of 285 to 287 degrees C. to fuse it, while the imitation becomes liquid at a much lower temperature.

MUCH has been heard of toughened glass, but Frederick Siemens now proposes to adapt that made by his process to the manufacture of street lamp-posts, water-mains, and other articles now made of cast-iron. He claims that his glass is stronger than iron castings, imperishable and incorrodible. The cost per pound, allowing more profit to the maker than can be obtained from iron, is twice as much as the cost of the latter, but the specific gravity is so much less that the consumer will be able to obtain glass articles about 33 per cent. cheaper than similar goods in cast-iron.

IT is well known that a black object on a white ground will appear to be much larger than it really is. A white stripe, for instance, on a black surface, seems broader than a black stripe on a white surface, although both be of the same width. This phenomenon of simultaneous contrast is physiologically explained by Peter Scherffer in this way: "When one of our senses receives a double sensation, one of which is active and strong while the other is weak, it will be found that the latter is not felt. This must be particularly the case when both impressions are of the same kind, or when a strong effect from an object on one of the senses is followed by another of the same kind which is milder and weaker."

GLYCERINE.—It is from the candle factories that the enormous supply of glycerine comes, which is now a very important article of trade. A few years ago it was wasted; now it is sent to the manufacturing chemist, who purifies it by distillation and filtration

through bone-charcoal, and puts it upon the market. It is put to a great variety of uses, many of which depend upon its peculiar properties of non-volatility and absorption by atmospheric moisture. Harness-makers and leather-workers use it in making leather pliable; it is put into gas meters because it does not freeze except at a very low temperature, modelers keep their clay studies moist with it; tobacconists sweeten chewing-tobacco with it, and ladies apply it to their hands and faces to soften the skin. Much of it goes into the manufacture of the terrible explosive, nitro-glycerine, which is made by treating it with a mixture of sulphuric and nitric acid, or concentrated nitric acid. Not less than 3,200,000 pounds of glycerine are produced by the candle factories, and utilized every year in this country, and yet so late as the year 1854 it was counted as worthless, and run off into the sewers.

NEWS RECORD.

Foreign and Domestic.

A large portion of the best quarter of Richmond, Va., has been destroyed by a terrible conflagration.

In France the Senate has adopted the primary education bill as passed by the Chamber of Deputies. This includes obligatory education in elementary branches.

Intelligence from Tashkend states the protocol providing for the surrender of the Ili Territory to China has been signed. Inhabitants wishing to emigrate to Russia will be under the protection of Russian troops for a year.

Because of the activity of nihilists at Moscow, the question of holding the coronation of the Czar elsewhere is seriously discussed. The attacks upon the Jews in southern Russia have recommenced. In one city the Jewish shops were set on fire with petroleum.

Eight hundred persons have been expelled from Moscow for not having passports. They were Jews. Happily the Czar has refused to confirm the recommendation of the commission on the Jewish question in favor of compelling the Jews to quit the rural districts, on the ground that such expulsion would almost ruin agriculture, and that the recommendations are generally conceived in a vindictive spirit.

Another instance of persecution of the Jews in Russia is the order compelling the Jewish apothecaries of St. Petersburg to retire from the business.

President Arthur has vetoed the Anti-Chinese bill, on the ground that it violated our treaty obligations with China, and was opposed to the political policy and commercial interest of the United States.

Another Anti-Chinese Bill has been introduced into the Senate by Senator Miller. It is substantially the same as the one just vetoed, except that it substitutes ten years for twenty years, as the period for which immigration is to be suspended. It has been passed by the House, and is now under discussion in the Senate.

Mr. Hunt, Secretary of the Navy, gives place to W. E. Chandler of New Hampshire, and Secretary Kirkwood, of the Interior Department, is replaced by Senator Teller of Colorado. Both appointments have been confirmed by the Senate.

Ex-Senator A. A. Sargent of California has been confirmed United States Minister to Germany, and Judge Blatchford of New York as Justice of the United States Supreme Court.

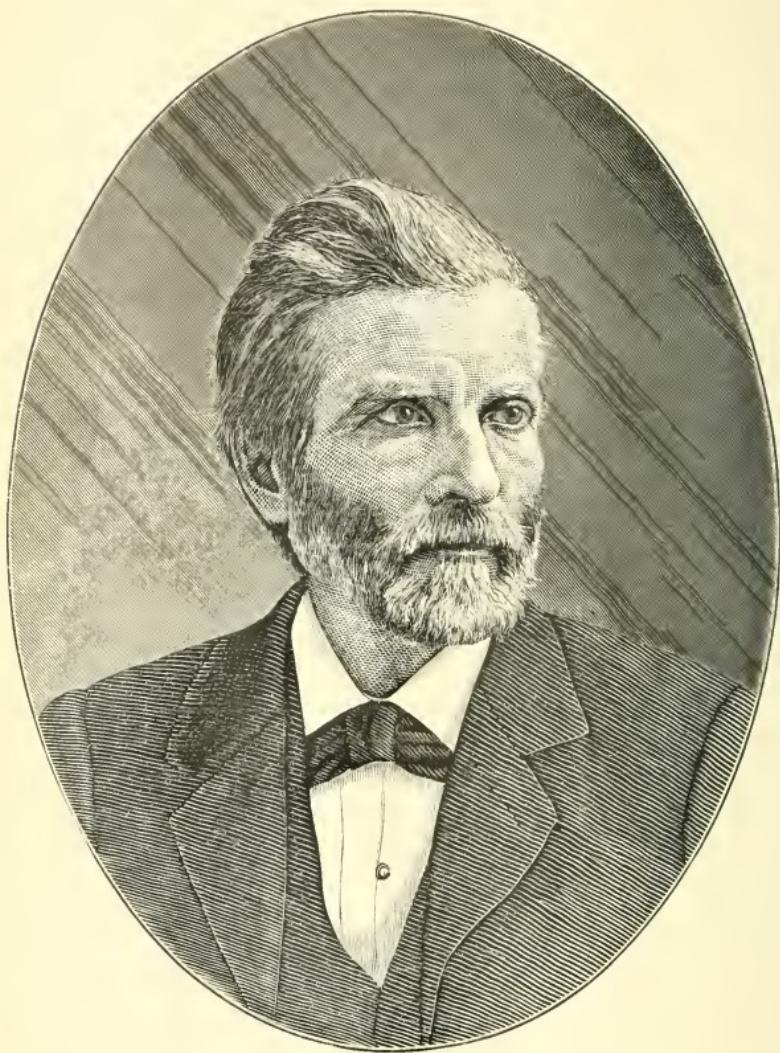
Michigan, Kansas, Dakota, and Missouri suffered last month from destructive tornadoes.

The desperate career of rapine and murder which the Missouri bandit, Jesse James, has run for the past twenty years is ended. He was shot in his own house at St. Joseph, last week, by one of his own band, who killed him to secure a part of the \$50,000 reward offered for the taking of James dead or alive.

If the cablegrams which come to us through German and English channels are to be fully credited, the Czar of Russia is in a state of abject terror, anticipating every moment some terrible nihilist plot.

The President has approved the Anti-Polygamy bill, and the last hope of the Mormons has departed.

Mr. Parnell has been released from prison on parole for one week, for the purpose of visiting a sister in Paris whose child has just died.



JOHN SWETT.

THE PACIFIC SCHOOL JOURNAL.

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INDUSTRIAL EDUCATION AND THE KINDERGARTEN.

AN ADDRESS DELIVERED AT THE CELEBRATION OF THE CENTENNIAL OF FROEBEL'S BIRTHDAY, APRIL 21, 1882.

IT is almost a truism to say that the need of industrial education is more and more keenly felt every day. The rapidly increasing applications of even the most recondite branches of science to the arts and needs of every-day life forces upon every thinking person the conviction that some means must be found to enable the artisan to carry on his trade with a better understanding of the principles upon which it rests, a knowledge of which will enable him to exercise it to the best advantage. Again, the disinclination of the younger generation to engage in the pursuit of the mechanic arts is a standing cause of regret and complaint. The professions are overcrowded; the merchant's counter, the government and business offices, cannot give employment to half of the applicants for clerkships. It is plain that there is something wrong in our social fabric, when the producing occupations are being deserted for the non-producing ones. But while it is easy to see the fault, it is not so easy to find a feasible and effective remedy; and doctors differ widely in regard to the merits of those that have been suggested.

Preaching is the easiest, but has also proved the least effectual. It is of little avail to attempt to convince the wide-awake youth of to-day of the beauty and dignity of hard, physical labor, when he finds that the great majority of those making their livelihood by such occupations are, as a matter of fact

placed out of reach of higher achievements, both as regards education, wealth, and the rewards of public consideration. The direct road to these seems to lie through what is termed "the professions"; and when these are unattainable, the young man turns to where he hopes to find at least "a soft place."

Parental compulsion, also, rarely leads to good results. In the choice of a life occupation, as in that of a wife, wise parents will seldom assume the responsibility of exerting too great a pressure.

Evidently, we must find the cause of the evil, in order to devise an effectual remedy.

When we examine closely the foundation of the bias that deters our youth from engaging in the mechanic arts, we find that it is not only the disinclination to exertion, but rather an aversion to what they consider unintelligent drudgery. Intrinsically, this is a hopeful symptom—the natural outcome of the intense activity and progress by which we are surrounded, and which excites the aspiration to something more than what mere machines or work-animals can as well accomplish. Whenever we shall be able to show clearly to the rising generations that the mechanic arts admit of the use and enjoyment of intellectual activity as much as the professions, and that when so pursued they also open the way to the same social and public consideration and substantial rewards, we shall see them preferred to the dry-goods counter and the clerk's desk, at least by the more ambitious portion of those who now seek the latter as a *quasi* badge of gentility and education.

If we can render the laborer and artisan intelligent, performing their work with an understanding not only of the best mode of doing it, but of the why and wherefore of its bearings on and connections with other subjects and pursuits, we shall go far towards solving one of the most important of social problems.

The most obvious method of accomplishing this is the establishment of industrial schools; and this has of late almost become the war-cry of advancing education. Much good has been thus accomplished, and the fast-increasing number of these institutions both in Europe and America testifies to the fact that they supply "a want long felt" much more truly than in most cases in which this phrase is used.

But even they fall far short of accomplishing, either in kind or amount, what is needful in this direction; and some of the difficulties encountered by them are very significant. There is considerable difficulty in engraving them upon or combining them with the ordinary common and grammar schools, whose subjects and methods are so entirely different from those required in the industrial schools that separate sets of teachers, rules, and methods have to be adopted for them, at least in the beginning; and with these, the expense of establishing the plant and varied appliances for such instruction on a scale sufficiently extensive for large schools, and many of them, is a consideration which will long deter most communities from attempting to establish this desirable feature of popular education.

I cannot refrain from alluding, at this point, to the wide-spread idea that we are spending enormous sums on education in connection with our public school system; and that from twelve to eighteen dollars per census child per

annum is all we can afford to pay for our children's preparation for life. It may well be asked of parents who appreciate the responsibilities they take in giving life to children, what, in their estimation, takes precedence of the equipment of their offspring for the duties of life? Should it not stand next in importance to food and clothing such as constitutes the necessities, not the luxuries, of life, and is the price of a new bonnet, or of two months' supply of cigars, all that can be spared through the year for the child's development? Is not this a very low estimate to put upon that which is to mold the child's destiny for weal or woe?

If the establishment of an industrial school in connection with every common school in the land could solve our educational and social problem, we could well afford to pay many times over what we now do, and take it out of what is now bestowed on extravagant dressing, smoking, drinking, lawsuits, and state prisons.

But from the experience of these industrial schools, it may well be questioned whether they would accomplish the desired end, unless a different foundation from what is now usually given is laid in early childhood, and until parents cease to consider (as but too many do) that their whole duty to the child is done by sending it to any school whatsoever. Nothing can replace home teaching and home influences; and whether good or evil, they are usually stronger than schools and teachers, so soon as the child has passed its period of greatest receptiveness—the first six years of life, during which it is at present excluded from the public school. If, during these years, it has been left to itself, or neglected, repressed, or wrongly molded, the difficulty of the teacher's task is enormously increased; and conversely, if this period has been properly and intelligently utilized, the facility, rapidity, and correctness of all future development is wonderfully favored.

The recognition of this great truth, and the deduction therefrom of an educational system adapted to the best development of the child's faculties at that early age, is the crowning merit of Froebel, whose centennial birthday we celebrate to-day. Had he lived in our time of sweeping industrial and scientific progress, based upon the application of science to practice, his arguments might have been more potent and incisive, but his system would not be materially modified.

That the training of the senses as well as of the mind, and of the study of the objective creation both as the means to that end and as an important end in itself, should form part of all education, had been asserted by many thinkers before him. But the scholastic system of instruction, which has been transmitted to us from the time when the ancient languages, literature, and mathematics were deemed the only subjects worthy of entering into general education, could not be successfully adapted to the study of objective nature; the attempts made in that direction have accomplished only the astonishing feat of rendering, for example, so charming a study as botany as dry and uninteresting as the multiplication table. The need of experimental and objective teaching was early recognized; but it found its way only into the higher schools, and still the "three R's" remained, and remain to this day in most primary schools, the only subjects of instruction.

Few who have not experienced it can appreciate the difficulty encountered by the teachers of science, in revivifying the perceptive faculties that have been blunted by sixteen years of disuse or direct repression. Few but these teachers would believe how great is the contrast between the student whose perceptive faculties have been fostered and trained in early childhood, and those whose only training has been given by the text-book and in the recitation room. The latter naturally regard with indifference, not unmixed with contempt or downright aversion, all that savors of mechanical occupation ; and yet, are but too often unable to find within the scope of their vision any life-pursuit for which they can feel a decided preference. It is my deliberate conviction, that were the kindergarten school universally made the basis of education, the sad array of young men who do not know what they are fitted for, and the thousands of third and fourth rate professional men that wearily struggle through unsuccessful lives, would be reduced to a mere handful of physically disqualified persons. They now miss their vocation for a lack of the early training which, by adapting itself to the child's natural phases of development, instead of repressing its faculties and causing fretfulness and worry, affords ample opportunity for each one to find a congenial and useful place in active life. We would have fewer unsuccessful "professional" men, and very many more highly successful artisans, elevating their calling into a profession because pursuing it intelligently.

It is not unusual to hear those who know of only the "outward signs" of Froebel's methods to say that the kindergarten is mere "child's play," and that the children learn nothing. We accept the word ; it *is* child's play, but it is that play so directed that while playing, and joyfully instead of wearily, and by unnatural effort, the child learns that which will illuminate its whole intellectual and moral existence, and will smooth its path not only during the period of education, but all through life. It is true, that like all things human, Froebel's admirable system may be reduced to a mere formula by purely mechanical use, and may thus be discredited and rendered comparatively ineffectual. Mechanical teaching and mechanical teachers are the especial bane of the public school system, because of a certain necessary uniformity of methods, which renders it more easily possible than in private schools subject to the supervision of parents. In the kindergarten more than in any other class of schools, the effective teacher is "born," not "made," in so far as certain natural qualifications are indispensable prerequisites ; and she who undertakes it (for it is emphatically a woman's work) must put her whole heart into it, and not consider it a mere makeshift.

To those who oppose the kindergarten because they feel that it would be more exacting than merely mechanical drill, I have nothing to say. But to those teachers whose heart is in their vocation, and who feel the great responsibility and importance of the work on their hands, I would say that, if they will study the principles of the Froebel's system, and watch the signs of the times and the coming wave of industrial progress, they can hardly fail to find in the kindergarten the solution of most of the vexed problems of modern education. As a teacher of industrial science, I can only repeat what I have said elsewhere:

"The industrial schools can never do effective work so long as all elementary instruction tends to educate the child away from industrial pursuits."

E. W. HILGARD.

Berkeley, Cal.

MAD RIVER.

IN THE WHITE MOUNTAINS.

TRAVELER.

WHY dost thou wildly rush and roar,
Mad River, O Mad River?
Wilt thou not pause and cease to pour
Thy hurrying, headlong waters o'er
This rocky shelf forever?

What secret trouble stirs thy breast?
Why all this fret and flurry?
Dost thou not know that what is best
In this too restless world is rest
From overwork and worry?

THE RIVER.

What wouldest thou in these mountains seek,
O stranger from the city?
Is it perhaps some foolish freak
Of thine, to put the words I speak
Into a plaintive ditty?

TRAVELER.

Yes: I would learn of thee thy song,
With all its flowing numbers,
And in a voice as fresh and strong
As thine is, sing it all day long,
And hear it in my slumbers.

THE RIVER.

A brooklet nameless and unknown
Was I at first, resembling
A little child, that all alone
Comes venturing down the stairs of stone,
Irresolute and trembling.

Later, by wayward fancies led,
For the wide world I panted;

Out of the forest dark and dread
Across the open fields I fled,
Like one pursued and haunted.

I tossed my arms, I sang aloud,
My voice exultant blending
With thunder from the passing cloud,
The wind, the forest bent and bowed,
The rush of rain descending.

I heard the distant ocean call,
Imploring and entreating;
Drawn onward, o'er this rocky wall
I plunged, and the loud waterfall
Made answer to the greeting.

And now, beset with many ills,
A toilsome life I follow;
Compelled to carry from the hills
These logs to the impatient mills
Below there in the hollow.

Yet something ever cheers and charms
The rudeness of my labors;
Daily I water with these arms
The cattle of a hundred farms,
And have the birds for neighbors.

Men call me Mad, and well they may,
When, full of rage and trouble,
I burst my banks of sand and clay,
And sweep their wooden bridge away,
Like withered reeds or stubble.

Now go and write thy little rhyme,
As of thine own creating.
Thou seest the day is past its prime;
I can no longer waste my time;
The mills are tired of waiting.

Henry Wadsworth Longfellow.

SUPPLEMENTAL DRILL IN ARITHMETICAL WORK.

In the matter of arithmetical training, teachers and other educators are generally agreed that pupils make calculations very slowly, and at the same time without that confidence which accompanies a thorough mastery of the subject. In view of this, any method of training or supplemental drill which leads to a rapid and accurate handling of numbers has two very desirable merits. It saves time, and substitutes the faculty of exactness for the slovenly habit of carelessness and inaccuracy.

Chief among the causes of slow and inaccurate computation of numbers is the inability to add rapidly. At a low estimate, one fourth of the time employed in study of arithmetic is wasted by this cause alone; therefore, the best service that can be rendered is to suggest a plan that is feasible, and which will commend itself as one to be thoroughly and patiently worked out. It is not the writer's intention to make this claim, but rather to urge a daily supplemental exercise in mental arithmetic for the purpose of developing exactness, quickness of thought, and attention, of which the following is an outline:

First of all, teach beginners to count, taking care that they count *things*, and that they do not repeat words to which they attach no meaning. Be sure, for instance, that each pupil understands that *five* means a definite number of units, and is not a word merely to be repeated after *four*.

When the class understand the value, the name, and the symbol of each number as far as ten, begin with easy combinations and separations.

Make every possible combination of each number up to ten, first with counters, and afterwards without them, taking care from the first to exercise the class in using figures to express results. Require the figures to be made neatly. When accuracy has been acquired, then drill the class with a view, not so much to rapidity, as to promptness and confidence.

Pass from the combination of units to that of tens, and then to units and tens.

So far, it is safe to say that the great majority of teachers agree, both in theory and in practice. Unfortunately, the drill work too often stops at this point, or before even so much has been attained, and the pupil drags through the arithmetic at a snail's pace. It is therefore the purport of this article to urge a continuation of this drill for a few minutes each day during the pupil's whole course.

Exercise the class or the whole school in all of the possible combinations of any two figures. Be sure that the sum or the difference is given *at sight*, and not by calculation.

Prepare a tablet of pasteboard or wood, on which figures are printed or neatly written. (See note.) It is better to have the horizontal rows on separate strips, so that the combinations may be easily changed. When but two figures are to be added or subtracted, it is a good plan to require the *right-hand figure only* to be given.

For instance—

8, 4, 3, 9, 1, 5.

9, 1, 8, 6, 4, 3.

The teacher places his pointer between any two figures, and the pupils answer, by addition, beginning at the left hand, "seven, five, one, four, five, eight," etc.; or by subtraction, "nine, three, one, three, seven, two," etc.

Practice this by individual pupil, by class, and by school in concert, until the pupils have acquired unhesitating accuracy and rapidity. In the concert work, the teacher will find it a good plan to require the answer to be given, not only in unison, but also softly and yet decisively, a full falling inflection being given to the total of each column.

Give a large portion of the time to individual recitation. If the concert recitation be faulty, pick out a few of the pupils who are backward, and give them an especial benefit.

When columns of figures are to be added, try short ones at first, containing not more than four or five numbers. If the strips or horizontal rows of numbers, before mentioned, are used, placing the top row at the bottom will change the entire combinations, and thus save the time of writing another example.

When rapidity and accuracy have been acquired by adding columns, one figure at a time, give an occasional exercise in which two or even three figures of the same column are taken at a time. Thus suppose the column to be as follows:

$$8, 3, 5, 4, 7, 3, 6, 9, 3, 4;$$

the mental process will be: eleven, twenty, thirty, forty-five, fifty-two. Judiciously extend this exercise until the sum of three and four figures is taken in at a glance.

An occasional exercise in adding two columns at once is a most excellent one. It requires but very little more mental exertion to add two columns at a time than one, while it is about twice as rapid.

In the foregoing suggestions, the writer makes no claim to originality. There is nothing within them that has not been repeatedly written in every school periodical. In spite of this, there is a great need of efficient drilling in the matter of addition alone. Such a course as is here outlined constitutes about ten minutes' daily work for an eight-months session, while at the same time it needs not interfere with the ordinary routine work.

It will be seen that there are only forty-five possible combinations, by addition, of the nine digits. It does not require much effort to memorize them, if only the work is done systematically and thoroughly. Such work is within the comprehension of the younger pupils, and in the writer's experience is imperatively needed by the older ones.

The accumulation of facts is not the end of study. That course which gives the greatest activity to the greatest number of faculties is the best. "The intellect is perfected, not by knowledge, but by activity. The arts and sciences are powers, but every power exists only for the sake of activity; the end of research is not knowledge, but the energy conversant about knowledge," says Aristotle.

J. W. REDWAY.

GLEANINGS FROM CONTEMPORARIES.

THE REVOLUTION IN EDUCATION.—It is doubtful whether the generality of well-educated men fully appreciate the great, the radical, and the almost revolutionary change which has in the past thirty or forty years come over the scope and spirit of English liberal education. Indeed, it can hardly be termed a change; but might be more correctly designated as a substitution of one branch of human knowledge for another. For, whereas, in the first forty years of the present century, the dead languages, especially Latin and Greek, history, logic, and metaphysics, fairly held their own against the computative sciences of mathematics, mechanics, physics, and chemistry, and the systematic or classificatory subjects of botany, geology, and zoology, as topics of teaching and examination, they seem at the end of the second forty to have been all but superseded. No doubt in the main the revolution, great as it undoubtedly is, has proved salutary. Englishmen, with their characteristic tenacity of existing forms, had retained all but unchanged in their large public schools and in the older universities a form of intellectual culture which really originated in the middle ages, or at the latest with the restoration of learning. This is no mere figure of speech. The writer of the present remarks took his first childish lessons, after mastering the rudimentary arts of reading and writing, from the "Boke of Roger Ascham," and received his first rewards for saying, parrot-like by rote, the ancient farragos now only known by their initial words—"Propria quo^m maribus," "Quæ genus," and "As in præsenti." Of the present generation, not one in a thousand has ever even heard of these mediæval *aide-mémoires*, or of the somewhat more useful scholastic scheme of syllogisms, beginning with the cabalistic formula, "Barbara Celerent." Later on, he and his companions were expected weekly to manufacture, *nolentes volentes*, a certain quantity of poetry—God save the mark!—in the Latin and Greek tongues. He can well remember his father's remonstrance on finding him working at "that nasty chemistry, when you have not done your Latin verses."—*Popular Science Monthly*.

THE SCHOOL AGE.—Dr. Jacobi, says the *Institute*, has made this a special study from the standpoint of physiology. His conclusion is that, as a rule, a child should not be sent to school before he is eight years old. Not till this age is its brain substance sufficiently developed. An infant's brain is soft. It contains a large percentage of water. It is deficient in fat and phosphorus, on which, to a large extent, intellectual activity depends. The convolutions are fewer.

The different parts of the brain do not grow in size and weight alike—the normal proportion of the front, back, and lateral portions not being reached before the age of ten.

So, too, the proportions of the chest to the lower portions of the body are not attained until the eighth year, while that part of the back (the lumbar) on which the sitting posture depends is even then only moderately developed.

About the fifth and sixth years the base of the brain grows rapidly, the

frontal bones extend forward and upward, and the anterior portion grows considerably. Still the white substance—the gray is the basis of intelligence—and the large ganglia preponderate. It is not till about the eighth year that the due proportion of parts is reached, and a certain consolidation both of the brain and the organs of the body generally. Before this period, it is safe only to give the memory moderate exercise.

DISCRIMINATION IN SALARIES AGAINST WOMEN.—A female teacher wants to know why she receives a smaller salary than a male teacher of like ability, in the same grade. It must be that she is willing to work for less, or directors discriminate against her sex. We know that some of the best teachers in the State are women. Their scholarship, tact, patience, fervor, fidelity, and unselfish devotion to their life work win the highest commendation. They should be adequately remunerated for their faithful services. So important is the part that woman is playing in the activities of the age that it should no longer be said: "A woman may be defined as a creature that receives half-price for all she does, and pays full-price for all she needs. No hotel or boarding-house takes a woman at a discount of fifty per cent. Butcher, baker, grocer, mercer, haber-dasher—all ask her the utmost penny. No omnibus carries her for half-price. She earns as a child ; she pays as a man."—*Arkansas School Journal*.

OVERCROWDING.—One of the great difficulties with which school-teachers have to contend in all large cities is the overcrowding classes. In Ontario the average number of pupils taught by each teacher is seventy-two, while to find from fifty to sixty scholars in each room is common throughout the country. The prevalent idea seems to be that the younger the scholars the easier it is to reach and manage them ; hence, one finds the primary rooms the most crowded. But, in fact, the care of sixty adult pupils is less difficult than that of thirty small children; and no teacher should be called upon to preside over and teach more than forty pupils in any primary school.—*Providence (R. I.) Press*.

THINGS NEEDED IN EVERY SCHOOL.—These things ought to be in every common school: First and most important is blackboard surface. Then there should be an unabridged dictionary, a numeral frame, a set of forms and solids, a globe, a magnet, a set of outline maps, charts for reading, etc. This is a short list, but contains much more apparatus than three-fourths of our schools possess; and the whole of it could be placed in every school in the State if the teachers made the proper effort, in two years at the farthest, without distressing or overtaxing anybody, and with great advantage to teachers and children. The teachers need waking up.

For the right kind of elementary teaching we need a greater amount of illustrative apparatus. Very many cannot use apparatus if they have it. The people are able to provide it, and will do so if they think it is needed. It is true economy to supply it. It lies in the hands of the teachers to obtain it, and when they wake up to their duty and privilege they will have it, and not till then.—*School Journal, N. Y.*

A HOODLUM.

CHAPTER VI.—HANDLING NUMBERS.

THE ability to handle numbers quickly, accurately, and with apparent ease will give a teacher in a country district a greater renown than almost any other one accomplishment. The practical advantages of such ability, the number of times it is useful in life, the suggestion of ability in other directions, all combine to give a good arithmetician a high place in the regard of many people.

To a certain extent “a natural gift for figures,” as it is often called, is inherited, and requires but little cultivation to develop it in many pupils. Children, as a rule, take more kindly to work in arithmetic than in any other study. They will drop every other kind of work to do examples in arithmetic; they will work an hour out of school over a troublesome problem, and desert their play to discuss a knotty point in fractions—and all this with but little encouragement from parent or teacher.

Yet the educational value of arithmetic is far below that of many another study, or rather it is below what the value of that other study would be if it were taught as well as arithmetic is taught.

Yet, plain as the study of arithmetic is, delightful as its practice can easily be made, many teachers fail in teaching arithmetic because they pursue an erroneous method. Arithmetic deals with facts which the child delights to store up. It is also burdened with rules and principles for which the child cares nothing. The child wants to handle the numbers; to know *how* to add, and *when* to add, and he cares very little to know the abstract—*why* he adds.

The first steps in every study are the hardest to take, and the first images upon the child’s mind are the hardest to efface. How many of us teachers bear in mind, when we are teaching primary arithmetic, that it is impossible for the beginner to consider an abstract number. Whether you will or no, *the child makes every number concrete*. These concrete images are usually faint, and if you seek to find them out, they seem to melt away in the minds of most children. But they are always there. “Think of two,” I tell one of my boys. “What two are you thinking of?” “Me and you,” was the reply. At another time, “Of my two little black puppies at home.”

The number four always brings to my mind a square; the figure four, a rhomboid resting upon its lower right-hand corner, and each of the other numbers up to ten has its own symbol or combination in my mind. And these symbols bear a certain likeness to each other, which resemblance is due to some relationship of the numbers. The figure five is pictured by an open hand with the fingers outspread; the number ten, by the same hand closed and thrown down at my side.

The hoodlum learns to play cards at an early age. Before he can fairly count, the mysteries of draw-poker become more or less familiar to his eyes. Is it any wonder that these pictured images of the numbers which Donald had

in his mind should bear a close resemblance to the spots upon the cards? Carl did not object to an occasional game of cards, and the boy learned to add with the help of "cribbage" and his dominoes; and the time spent in playing the games was not entirely wasted.

Children delight in playing games of chance, and though this kind of amusement may easily be carried to excess, there is nothing harmful in a friendly game of cards. True, harm can be made if betting is allowed, but those people who have no more moral principle than a gambler can easily find plenty of things to bet upon: the weather; how much they can lift; or who can knock the most marbles out of a ring. The ability to play a good game of cards carries with it no more evil influence than the ability to outrun your neighbors, or to shoot more accurately than most other marksmen. Carl gave many an example in practical addition, subtraction, multiplication, and division, over the frame stuff and the parts of his bee-hives; how many sides to the seventeen frames in the hive and super; how many frames in a hive, super and nadir; how long the V pieces must be to leave $\frac{1}{2}$ of an inch clear on each side after a piece $\frac{1}{2}$ of an inch thick was nailed to each end; numerous were the problems in simple numbers and fractions which the boy did time and again, following no set rules, but proving his work with square or foot-rule in hand.

Examples of this practical kind gave Donald considerable arithmetical skill before Carl gave him a book or asked for whys and wherefores.

Work that Donald could do in his head he was encouraged to do mentally, for Carl despised that kind of arithmetical training which seeks the help of a pencil for every little work in numbers. Especially did he value the multiplication table; and sometimes he would stop in the middle of a sentence and ask, "Eight times seven?" and if Donald hesitated a moment for the right answer, he would say, "The tables want to get better acquainted with you, Don." "You poke the tables under a fellow's nose when he isn't looking for that kind of a dinner," grumbled Donald. "If I should wake you up in the middle of the night and shout 'nine times seven' in your ears, before you get your eyes open, you ought to answer—what?"

"Fifty—sixty-three," hastily corrected Donald. "Pshaw! when I am as old as you I will know them just as well, and then I shall be scaring some other small boy with 'six times nine,' and telling him, before he has time to wink, 'There, you don't know it; go, study your tables.' I tried one of those city chaps with the multiplication table the last time I was in Santa Barbara, and after he got two or three hard ones stuck into his throat, he told me to dry up, he had enough of that stuff at school." "And I expect that he was younger than you, so he has more time to learn them," said Carl, unfortunately making a wrong guess as to whom Donald had been quizzing.

"That's where you've got the wrong pig by the ear—waked up the wrong passenger; you know what I mean, if it is slang," and the young hoodlum had the grace to blush a little at his relapse into city slang. "Anyway, the chap was two years older than I am, and he had been going to school for *seven years*," with extra strong emphasis upon the last two words. "Don't you think," con-

tinued he demurely, "that you are crowding me a little too fast in arithmetic for my health? You said I was saying over the tables in my sleep last night, and I expect that's a sign that my brain has growed too fast." "It is a sign that you ate too many pieces of lemon pie for supper," said Carl, laughing, "It is not at all strange that you should talk about the multiplication table, as that has been your chief thought the past week; but you eat a light supper to-night, and your brain will rest."

"But how is it," persisted Donald, "that those chaps who have been studying arithmetic for five or six years can't add, subtract, multiply, or divide near as well as I can, and I have only been studying three months? And they don't know anything about fractions." "I suppose you think it is because you are smarter," said Carl good-naturedly. "One reason is, they do not have individual attention like you have. Another reason is, the methods they use in those schools are not natural. Then your teacher has an interest in you beyond preparing you for a certain examination. He knows just what you do and do not know, and can give a lesson just suited to you, while a lesson for a class must be suited to all, in a measure, and cannot be so well fitted to supply individual needs. If you desire to go fast, you have no slow-moving class to hold you back. You use your arithmetic in your work, and an ordinary teacher cannot see that his pupil has special work to help him practice his learning.

"Then I suppose I have an *extra*-ordinary teacher," said Donald, jokingly.

"I know I have an extraordinary pupil," retorted Carl. "He calls eight 'a pair of fours,' and nine, 'three of a kind.' Do you remember calling 100 'a pair of tens and ace high,' and when I wrote down 10,000 and asked you what that was, you promptly said 'four of a kind'?" "Yes, and then you wrote down 1, 2, 3, 4, 5, and said you supposed I would call that a sequence, and 1, 1, 1, 1, 1, a flush," laughed Donald. "I knew more about draw-poker than the multiplication table in those days. But you have a paper of candy hearts in your pocket; let me have them, and I'll show you how good I am at division."

"I'll give them to you when you earn them," said Carl, pouring them out upon the table. "There are just thirty-five. Would you rather have three-fifths of them or four-sevenths of them?"

"Let me see," said Donald, rapidly sorting out a pile of seven, and another pile of five. "Three sevens or four fives. I'll take three-fifths for mine."

"You made one by that operation," said Carl pushing a piece towards Donald. "Now, will you have half of the balance, or nine-seventeenths?"

"Nine-seventeenths every time," responded Donald promptly, and gathered in another piece of candy. "You might as well pass 'em all over, for I'll have them anyway."

"Two-thirds of the rest, or eight-elevenths?" said Donald coolly.

"Two-thirds," said Donald, guessing at it this time. "Hold on! That's not fair!" as Carl reached over and took back the two Donald had won."

And so Carl went on with his practical lesson in fractions until the candy was evenly divided, and then, gathering up his own half, he said, "You will enjoy the candy better now that you have earned it; better than if I had given it to you."

"You bet it pays to understand fractions," assented Donald. "Here goes a whole seventeenth down my throat. I never thought I should live to swallow fractions this way." "I don't intend that you shall have quite so big a fraction of a lemon pie to-night," said Carl. "You can have about five twenty-ninths of that other pie, but not any more. You had about eleven twenty-ninths last night, and that was the reason the tables bothered your brain. Now, if you will take up about seven-thirteenths of those beans in that dish, we will eat supper."

"I feel as if I couldn't eat more than forty-nine fiftieths of a supper to-night," responded the boy. "Too many fractions have spoiled my appetite, I suspect."

Thus making a sport of lessons, and getting fun out of the dry figures of arithmetic, the two talked of the various lessons and work of the day.

MAKING THE PROGRAMME.

THE making of the programme in an ungraded school is a duty that cannot be thoroughly performed without "some fever of the brain." On its proper construction depend, in large measure, the order and efficiency of the school.

If the programme is not well made, a variety of evils may follow: (*a*) The time of the teacher may be divided into bits, and thus frittered away. It is not an unknown occurrence for a country teacher to hear forty classes daily, and there are few who do not hear more than necessity demands. (*b*) The teacher's time may not be well apportioned among the several classes. Some recitations may rob others of the time due them, thus causing therein poor work and dissatisfaction. (*c*) The study hours of pupils may be so badly arranged that perpetual mischief is bred. (*d*) Certain pupils may not have a sufficient number of recitations, when the teacher is subject to the criticisms of the parents. (*e*) There may be an uninteresting and illogical arrangement of studies, thus detracting from the interest of the school.

It behooves the teacher, therefore, to study carefully every one of the many phases of the subject which present themselves when a programme is to be made, and to utilize any assistance that may be at hand.

Every school differs from every other, in greater or less degree, and a programme made for one will rarely exactly fit any other in all particulars. It should be "adapted, not adopted." However, the ends to be secured are usually so nearly the same that the construction of any programme may be guided by certain fixed principles, some of which may be stated as follows:

1. *Keep the number of classes as small as possible.*
2. *Give every child an opportunity to recite at least four times a day, especially in the lower grades.*
3. *Allow reasonable time for study between recitations.*

4. Let the most restless class recite when disorder is most likely to occur—generally at or near the close of each half-day session.

5. In fixing the length of a recitation period, consider the age of the pupils, the size of the class, and the nature of the study.

The permanent organization of the school can be effected only after the teacher knows, in the main, the natural and acquired ability of the pupils. This known, an ordinary ungraded school of forty or fifty pupils will, with a little management, divide easily into four grades, or four grades besides the chart class. These may be designated by the letters A, B, C, and D. If another grade is needed, let it be known as the Chart Class.

The teacher should now determine what branches he will teach. He may with safety set down reading, arithmetic, geography, grammar, history, spelling, writing, and perhaps one advanced study. His next and most important consideration should be, how many classes in each he will have.

If the school is a large one, the classes in the Third Reader and above need recite but once a day in reading. Some one of the books in a series may be omitted for any given term, so that there may be but four grades besides the beginners in this subject. If two of the grades recite twice a day, and the chart class three times, there will be nine recitations in reading daily.

In arithmetic, the A and B classes may have written arithmetic, while the C and D classes, or all who cannot work in A or B, may be united in oral and written arithmetic. The chart class should have a number lesson each day. There will thus be four recitations daily in arithmetic.

There need not be more than two classes in geography. The A and B classes may unite on advanced work, or better, the A class may drop this branch for history, leaving the B and C classes to unite. The other work may be general in character, with recitations from maps. It should be largely oral, and may consist of naming and bounding natural and political divisions; naming and locating capitals and chief towns; rapid sketching; locating and naming in order, oceans, bays and gulfs, capes, mountain ranges, rivers and river systems; naming products to be expected in given climates; learning interesting facts concerning nations, places, and peoples.

The grammar may also be disposed of in two classes. The first of these should pursue the study of technical grammar, while the second should recite in language lessons. I am well aware that many teachers not only do not teach language lessons, but do not even possess books treating on this subject. I am equally well aware that any teacher who neglects this study will not long be recognized as first-class. Some of the good books on this branch are named in the note below.*

The spelling in the lower grades should be conducted in connection with the reading. The remainder of the school should be divided into two classes,

* Swinton's Language Lessons, Harper & Bros., New York; Elementary Lessons in English (Teacher's edition), Ginn & Heath, Boston; Normal Methods of Teaching, Normal Publishing Co., Lancaster, Pa. (a useful book on teaching in general; price \$1.50); First Lessons in English, Clark & Maynard, 734 Broadway, New York; A Shorter Course in English Grammar and Composition, Ivison, Blakeman, Taylor & Co., 117, 119 State St., Chicago. It is desirable that the chart class be instructed in elementary language lessons.

and both heard at the same time. This may easily be done for the written work, the teacher pronouncing to both classes. A few minutes may then be given in succession to each class for assignment and oral work.

The writing may be similarly managed, the school being divided into about two grades.

To secure a proper consideration of the amount of time to be allotted to each recitation, the following plan is suggested: Place the names of classes to be taught in column, and after each the amount of time deemed ample in order to secure good results. The estimated time, and that finally fixed upon, should, for convenience, be multiples of five. Add the several amounts estimated, and deduct from the sum the time actually at command. This will be found by subtracting recess time, usually thirty minutes, from six hours. Correct the first estimate by deducting in small amounts, from the several recitation periods, the excess of the estimated time over that really at the teacher's service. The scheme will appear something as follows:

	Est'mtd Time.	Cor'ctd Time.
Opening Exercises.....	15	10
Reading	A Class.....	25
	B Class.....	20
	C Class (twice).....	30
	D Class (twice).....	30
	Chart (three times).....	45
Arithmetic	A Class.....	25
	B Class.....	25
	C & D (oral)	20
	Chart Class (numbers).....	15
History Class.....	25	20
Geography	B, with pupils from A & C.....	25
	C & D (oral).....	20
Grammar	A, with pupils from B.....	20
	B & C, Language.....	20
Spelling	{ A & B }	20
	{ C & D }	20
Writing	{ A & B }	25
	{ C & D }	20
General Exercises.....	15	10
	<hr/>	<hr/>
	420	330

Next follows the arrangement of the order of the recitations. The following programme may easily be adapted to the wants of almost any country school:

Hours.	Minutes.	Classes.
A. M.		
9	10	Roll Call and opening Exercises.
9-10	10	Reading, Chart Class.
9-20	15	Reading, D.
9-35	15	Reading, C.
9-50	20	Arithmetic, B.
10-10	20	Arithmetic A.
10-30	15	
11-45	10	Language, Chart Class.
11-55	15	Arithmetic, C & D.
11-10	15	Reading, B.
11-25	15	History.
11-40	20	Writing (two classes).
12	60	NOON.
P. M.		
1	20	Roll Call. Geography, B (A & C).
1-20	10	Number, Chart Class.
1-30	10	Reading, D.
1-40	10	Reading, C.
1-50	20	Reading, A.
2-10	15	Language, C (B & D).
2-25	15	
2-40	10	Reading, Chart Class.
2-50	20	Grammar, A.
3-10	20	Geography, C & D.
3-30	20	Spelling (two classes).
3-50	10	Closing Exercises.

Suggestions:

Let the teacher direct the study of all the smaller pupils at least. The chart class may be set at slate-work for reading, spelling, and writing; or set to arranging objects—sticks, beans, pebbles, etc., in connection with their number work.

2. An arithmetic class may be preparing problems at the board or on their slates during the recitation immediately preceding their own.

3. I am aware that custom makes the chart class recite four times a day in reading, and ignores all such things as number and language lessons. It is a tradition that nothing, however good and sensible, can be done in the country that has not been done there for ages. This, I am sure, is an error, and it is earnestly recommended that the teacher prepare himself to teach number and language lessons. Next month the journal will give an outline for a year's work in Elementary Language. Meantime, lacking other suggestions, the teacher may employ his chart class on talking exercises, on memorizing choice bits of simple poetry, on learning many facts, such as the names of the days of the week, of the months of the year, of the president and governor; the names of the state, county, and town in which the school is taught, etc., etc.—*The American Educator.*

SKETCH OF A LESSON IN FORM.

INTRDUCTORY NOTE.—Before commencing lessons in form, the pupils are supposed to have had a course of talks with the teachers, in which they have been led to understand the *senses*. The signification of such words as *object*, *length*, *height*, *depth*, *breadth*, and *thickness*. In connection they may be led to appreciate the use of the word *dimensions*.

In the first lessons, as indeed through all the work, the teacher must guard against *haste*. A class of young children, in a lesson lasting twenty-five or thirty minutes, will seldom learn more than three new *terms*, and any attempt to hurry them must result in their gaining *words* without the underlying ideas. They should be led to appreciate the necessity for a new word before it is given them.

In order that the children may early acquire correct habits of expression, the teacher must have them pronounce distinctly, and must be very careful that they make full statements. Fragmentary answers or remarks indicate indistinct ideas, as well as disconnected thoughts.

As a means of cultivating the judgment, as well as of holding the attention of all the children, frequent class decision is judicious. The teacher's confirmation of correct judgment should, of course, immediately follow a class decision, as no child should be permitted to remain uncertain whether he is right or wrong.

The teacher must arrange the matter for development as clearly and concisely as possible, and before meeting her class must arrange a definite plan for each particular lesson; taking care that this plan shall admit such modifications as circumstances may require.

LESSON.

Teacher (presenting box to class).—What have I?

Child.—You have a box.

T. (passing her hand over it, taking care to touch every part).—What am I doing to this box?

C.—You are touching the box.

T.—How do you know that?

C.—I can see you touching it.

T.—What sense are you using in order to see me doing this?

C.—The sense of sight is used.

T.—You may touch the box. [Child does so; teacher taking care that he passes his hand over every part.]

T.—Mary, you may tell me what John has done?

C.—John has seen and touched the box.

T.—How many senses has John used in examining this object?

C.—He has used two senses, sight and touch.

T.—How many think that is true? [Class decide by a show of hands. Teacher confirms, saying, "Yes, that is right."]

T.—You may show me some other part of this box which we have not seen and touched.

C.—Cannot.

T.—Why?

C.—I can't get at it.

T.—You may show me the part of this ball which you can see and touch. [Child does so; other children showing parts of slate, desk, etc., passing their hands carefully over the parts.]

T.—Who can tell whether those objects have parts which you cannot see or touch?

C.—They have, but we can't get at them. [Class decide, and teacher confirms.]

T.—Who can tell me what that part of an object which we can see or touch is called?

[Child may say the *outside*, but the teacher corrects that by opening the box, and showing them that they can see or touch the inside of some objects; then she gives the term *surface*, which the class repeat, the teacher taking care that they pronounce the word very distinctly.]

T.—What is a surface?

C.—That part of an object which we can see or touch is called the *surface*. [Class repeat; teacher writing statement on the board.]

T.—Show me the surface of your slate, desk, ball, etc. [Child does so, each time making statement, "This is the surface of the ball," etc. Teacher drills them until she is certain the term is understood, then the class read from the board the written definition.]

T.—(passing her hand over one side of the box).—What am I doing now?

C.—You are touching another part of the surface.

T.—How does the part which I first touched differ from the part I am now touching?

C.—The part you first touched goes one way, and the part you are now touching goes in another way. [Class decide. Teacher confirms, saying, "We call the way in which each of the parts go an *inclination* of the surface."]

T.—Now, how does this inclination of the surface compare with this? (Touching one side and one end.)

C.—This inclination is different from that. [Class decide. Teacher confirms.]

T.—(Touching the bottom).—How does either of these inclinations of the surface compare with this?

C.—They are both different from that inclination. [Class decide. Teacher confirms.]

T.—Show me the different inclinations of the surface of this object. (Presenting different objects to children, and leading each child to make a full statement.)

T.—Who can tell what the different inclinations of a surface make? (Produce.)

[Child will very likely give the word *parts*, in answer, which the teacher

corrects by leading him to see that any place she touches is a part of the whole surface. Then if the child cannot tell, she gives the term *faces*, and a child repeats the full statement: "The different inclinations of a surface produce (make) faces." Class repeat; teacher writes it on the board.]

T. (presenting objects).—Show me the face of this object. [Child does so, stating, "This is a face," "This is a face," etc.]

T. (presenting box).—Notice carefully as I pass my hand along this face, and tell me what is true of its direction.

C.—The direction of that face is (always) the same. [Class decide. Teacher confirms. Also have children find other faces having the same direction.]

T. (presenting cup or bottle).—How does the direction of this face compare with the direction of the other?

C.—It is different. [Class decide. Teacher confirms.]

T.—How does it differ?

C.—The direction of this face is not always the same.

T.—Since the direction of this face is not always the same, what may you say it does?

C.—It changes its direction. [Class decide. Teacher confirms.]

T.—Now look closely, and find just where this face changes its direction.

[Child cannot find the place, and at length states that the direction changes "everywhere," or "all the time," when teacher asks for a class decision, which she confirms, using the word *continually*, instead of the expression "all the time."]

T.—Look round the room, and find faces whose directions are always the same, and also those which continually change their directions.

[Children do so, each stating, "The direction of this face is always the same." "The direction of this face is continually changing."]

T.—Who can tell me what a face whose direction is always the same is called?

C.—A face whose direction is always the same is called (teacher or child give term) a *straight* face. [Class repeat; teacher writes it on board.]

T.—And what is a face whose direction is continually changed called?

C.—A face whose direction is continually changed is called (teacher or child) a *curved* face. [Class recite; teacher writes on the board.]

T. (passing her hand over the top of the box).—What prevents this face from going farther outward in this direction?

C.—The side-face meets it, and stops it. [Class decide. Teacher confirms.]

T.—And what prevents it from going out in this, and this direction? (*toward ends*).

C.—The end-face meets it and stops it.

T.—How many faces meet here?

C.—Two faces meet.

T.—And here?

C.—Two faces meet.

T.—Show me other places where two faces meet. [Child does so, showing several, and making full statements.]

T.—Who can tell me what the meeting of two faces forms (makes) ?

C.—The meeting of two faces forms (makes) (teacher or scholar) an edge.
[Class repeat; teacher writes statement on the board.]

T.—Of how many kinds of faces have you learned ?

C.—Of two kinds—*straight faces* and *curved faces*.

T.—Since the meeting of two faces forms an edge, what kind of an edge do think the meeting of two straight faces form ?

C.—The meeting of two straight faces forms a *straight* edge, and the meeting of two curved faces forms a *curved* edge.

Teacher may drill the class in what they have learned by having them show her surfaces, faces (*straight* and *curved*), and edges of different kinds, and by having them read the statements written on the board. Then she may erase statements, and have the children review objects and give definitions without descriptions. If they are sufficiently advanced, they may write the definitions which they have learned in their note-books.—*Primary Teacher.*

THE END OF THE WORLD.

THE age of the earth is placed by some at five hundred millions of years; and still others of later time, among them the Duke of Argyll, place it at ten million years, knowing what processes have been gone through. Other planets go through the same process. The reason that other planets differ so much from the earth is that they are in a much earlier or later stage of existence. The earth must become old. Newton surmised, although he could give no reason for it, that the earth would at one time lose all its water and become dry. Since then it has been found that Newton was correct. As the earth keeps cooling it will become porous, and great cavities will be formed in the interior, which will take in the water. It is estimated that this process is now in progress, so far that the water diminishes at about the rate of the thickness of a sheet of writing-paper each year. At this rate, in six million years the water will have sunk a mile, and in fifteen million years every trace of water will have disappeared from the face of the globe. The nitrogen and oxygen in the atmosphere are also diminishing all the time. It is in an inappreciable degree; but the time will come when the air will be so thin that no creatures we know can breathe it and live; the time will come when the world cannot support life. That will be the period of old age, and then will come death.—*R. A. Proctor.*

A PERSON who is too nice an observer of the business of the crowd, like one who is too curious in observing the labor-bees, will often be stung by curiosity.—*Pope.*

EDUCATORS OF THE PACIFIC SLOPE.

JOIN SWETT.

JOHN SWETT was born at Pittsfield, New Hampshire, in 1830. On his father's side his ancestors were pioneers and Indian-fighters in New England. His grandfather was a Revolutionary soldier. His father was a teacher and farmer. Mr. Swett's early education was a combination of farm-work and country school. At twelve years of age he was left, by the death of his father, to look out for himself. He had means sufficient to secure a good academic education, which was obtained at Pittsfield Academy, Pembroke Academy, and Prof. William Russell's Normal School at Reed's Ferry, New Hampshire. Like many other New England young men, he taught school during the winters, attended school in the autumn, and worked on the farm in spring and summer.

In August, 1852, he sailed for California, via Cape Horn, arriving in San Francisco in February, 1853. He worked about six months in the mines on Feather river; but not "making his pile" or finding his fortune, or because the rude society in the mines at that early time was distasteful to him or the labor too hard, he came to San Francisco. He heard of a district school in the country, and applied for it, having three certificates for teaching in New England, besides flattering letters from Prof. William Russell. But these would not pass him. They examined him half a day, and gave the school to some one else. He then returned to San Francisco, and a vacancy occurring in the city, he applied with fourteen others. They were asked one question each on the subjects of arithmetic, grammar, geography, and spelling. He came out No. 1, and the school was given to somebody who had *friends* in the department. Two months after he was elected principal of the Rincon school, December 4th, 1853.

From the very first hour of his work there was evidence of what stuff he was made. The school had been organized two years before, and two teachers, probably unsuited for the work, had failed in its management. The school building was scarcely more than a hovel, out upon the hot sand-hill, with two small, miserable rooms, and the pupils having a good share of the independence that the surroundings gave children at that time. Mr. Swett was quite small in stature; but it was soon found that he was an embodiment of will, energy, and physical and mental vigor, and that he knew his business. He soon proved that he knew what a public school needed and how to get it better than any man in the community. The school had languished through two years of existence; but new blood was now infused into it, and new life was soon manifested.

In one year from the time of his taking charge, the local press was full of the description of the dedication exercises of a new school building for that district, two stories in height, and sixty feet in length, with three departments, well lighted, well ventilated, blackboards throughout—wash-rooms, mats, hat racks—all luxuries then—and seats for three hundred

pupils. That was a good report to make for the first year in San Francisco. Mr. Swett was at the bottom of that movement—and at the top of it also, for that matter. He was the driving-wheel for everything pertaining to the school. He delivered an address on the occasion, full of the principles of the New England school system and the sentiments of its wisest and most advanced advocates. He astonished and alarmed some tender and indulgent souls on points of discipline; but it was seen that he meant business, and that his remarkable tact for management meant success, and he was fully sustained. Three months after this dedication the press was again ringing the praises of this school on the occasion of the first of a series of public exercises, novel at this time, which followed regularly every term through the seven years that he remained in the school. These exercises consisted of select readings, declamations, dramatic renderings, calisthenics, gymnastic drills, phonic drills, and songs. These exercises were many of them new features in the public schools, which M. Swett introduced, and were the result of his advanced ideas and by study under Prof. Russell in the East. He frequently, also, secured the attendance of public speakers to address pupils and parents on these occasions, and to thus advance the features he introduced. Parents and the public generally were attracted by these methods, and the pupils retained in the school, which they came to regard as their *Alma Mater*, to be remembered in all time. The school grew to be one of the largest; but Mr. Swett was equal to its demands and for all occasions. If a special address was needed for a special hour—salutatory, valedictory, or dialogue—he did not borrow them: he wrote them. If they wished a poem, he wrote that also. He was writing for the press much of this time besides. The subjects of the “Division of the School Fund,” “Sectarian Schools,” “Co-education of the Sexes,” “Physical Culture,” and other vital matters came up for discussion, and Mr. Swett wrote many vigorous articles on all these. In all conventions—State or county—and all institutes he kept these subjects before the minds of teachers. In the first State convention, held in San Francisco December, 1854, Mr. Swett took a prominent part, and at this early period he spoke upon these subjects which he afterward elaborated so thoroughly. In 1855 suggestions began to be made for opening normal classes for teachers in San Francisco. We are not certain who first proposed it, but Mr. Swett was certainly among the first to advocate it. In regard to physical culture in the schools, he was very strenuous. He arranged for an exhibition in his own school to raise money for a gymnasium, the city not providing the means, and collected several hundred dollars, with which a gymnasium was started. At the first State Institute in 1861, his class, trained by himself in this gymnasium, gave a public exhibition in the large hall where the assembled teachers from the whole State had met, with dumb-bells, rings, wands, Indian clubs, calisthenics, and free gymnastics. It was novel, and elicited great applause. The influence soon extended to other schools. It is said that as an outgrowth of this came the famous Olympic Club of San Francisco, one of the finest in the country now. We do not know as to this; but many of the pupils of this first class became members of it.

After teaching in this school seven years, he resigned to take the impor-

tant position of State Superintendent of Public Instruction, to which office he was elected in the fall of 1862, as candidate of the Union party. It was during the second year of the Rebellion, and partizan feeling was hot. Through the electric eloquence of Starr King, Col. Baker, and other prominent Republican leaders, the State had been held in the Union. Mr. Swett, fully sympathizing with this spirit, was easily elected. His first term was abridged from three years to eleven months on account of the Constitutional amendments adopted in 1862, providing for the election of superintendent of public instruction at the special judicial election instead of the general election. But he was re-elected in 1863, and for a term of four years.

As early as 1859, State Supt. Moulder had recommended in his reports to the Legislature an appropriation for the establishment of a State Normal School. After repeated appeals, the Legislature of 1861-62 granted a small appropriation, and the school was opened in a room in the high-school building, with one teacher. Mr. Swett soon secured larger appropriations and an increased corps of teachers, and the revised school law made the State Board of Education *ex-officio* a Board of Normal Trustees. It soon had one hundred pupils, and proved a success.

He made his first report at the close of the year 1863, and the following topics treated in this report will show how carefully he had studied and thought out the whole subject of State education.

Receipts and Expenditures, Number of Schools and School Children Attendance, Teachers' Wages, Change of Teachers, County Institutes, Errors in Reports of County Superintendents, Reports of Teachers and Trustees, District School Trustees, State Teachers' Institute, State Board of Examination, Certificates and Diplomas, State Educational Society, Convention of County Superintendents, County Teacher's Certificates, Reports and Blanks, Order Book, School Registers, State Normal School, Educational Journal, District School Libraries, School Buildings and School Architecture, State Agricultural School, University Fund, The School Fund, State School Tax, Military Drill in Schools, Relation of the State and the Schools, Patriotism in the Schools.

Additional topics in second report: Cost of our Public Schools, Cost Compared with Private Schools, School Property, Length of the Schools, Schools compared with other States, National Bureau of Education, County School Tax, County Institutes, State Institutes, Methods of Teaching, Course of Study for Ungraded Schools, Physical Training, Moral Training, The Bible in the Schools, School Discipline, Punishments, State Normal School.

It is safe to say that no other public-school teacher in this State would have done this work. They are not common anywhere.

One of the first subjects which he brought before the third State Institute in 1863, one of the largest bodies of teachers ever assembled here, was a State tax for the support of schools. Mr. Swett advocated this in a long and eloquent address, taking for his text, "It is the duty of a Republican government, as an act of self-preservation, to educate all classes of the people; and the property of the State should be taxed to pay for that education." With this urgent appeal of Mr.

Swett, it was brought before the convention, discussed, a form of petition prepared and circulated, and six thousand voters signed it. Another important measure acted upon related to a State school journal. In the discussion considerable opposition was shown; but a committee was finally appointed, who reported favorably, and the *California Teacher* was started, with Mr. Swett as chief editor, and he carried it through five years. Mr. Samuel Swezey was associate editor. Another subject brought before this convention was that of a State professional society, a subject Mr. Swett had been interested in for several years, and he probably initiated this movement. It was discussed in full, a committee was appointed, a plan matured, and the State Educational Society was soon after organized. Another subject was a State series of text-books, which series, after much discussion, was adopted. A large number of State diplomas and certificates were granted at this Institute, and a valuable volume of proceedings published. Mr. Swett's influence was felt directly in all this work.

In 1864 a supplementary and amendatory bill was introduced, providing for an annual State school tax of five cents on each \$100 of taxable property, to be apportioned in the same manner as the interest of the State school fund; also requiring each county to levy a minimum county school tax equal to two dollars for each child between four and eighteen years of age; raising the maximum rate of county tax allowed by law from twenty-five cents to thirty cents on each \$100; making it the imperative duty of public school trustees to levy a district property tax sufficient to maintain a public school five months in the year whenever the State and county school money shall be insufficient for that purpose.

During his term of office the school law was twice revised. The final amendments were so extensive that the whole law was finally submitted by the Senate committee to Mr. Swett for revision. He drafted an almost entirely new law, which was passed with but slight changes.

Among some of the most important points secured by this sweeping revision are these: The first recognition of the legal rights of colored children; the funding of the debt of the State—\$600,000—to the school fund; recognition of Normal diplomas of other States, also the recognition of State life certificates of other States; first, second, and third grade State certificates; and life diplomas to teachers of ten years' experience, holders of educational diplomas; a course of study for public schools; a uniform series of text-books; State certificates to be recognized by city boards of education. These provisions made teaching a legal profession.

The first biennial report of Mr. Swett for 1864-65 shows what he had accomplished in the first two years of his term. The increase of school money raised by taxation alone had been increased nearly 100 per cent. The length of school terms had been increased one month. Teachers' salaries had risen sixty per cent. The school revenue had been increased \$2.58 for each census child. In the two years seventy-eight new schools had been opened. One-half the public school children had been relieved from rate bills. Besides these statistical facts there were other points, vital, intangible,

which statistics cannot reach. The schools had taken a stronger hold on public opinion. There was greater skill, earnestness, and ability of teachers; improvements in methods of instruction and classification; greater enthusiasm and interest of pupils; better books; greater interest of parents; the civilizing agency of good schools all over the State—these things cannot be expressed in figures, nor conveyed in words.

The second biennial—Mr. Swett's last report—had these results: For the first time in the history of the State every public school was entirely free for every child to enter; a system of free schools supported by taxation was an accomplished fact. In 1863 a State tax of five cents on the \$100 was secured, which put \$75,000 per year into the State school fund. In 1864 additional revenues were secured, which put \$75,000 more into the county school fund. A bill was passed providing for funding the debt which the State owed the school department. This gave \$600,000 to the schools. In 1864, by increasing the State and county taxes, \$125,000 more were added to the school fund. Thus, in the five years of his administration he had raised the revenues of the public schools of the State nearly \$300,000—in fact, they had been more than doubled, and this in the midst of a terrible civil war, and of high State and national taxation. As Mr. Swett says, “It was no holiday task.”

In 1867 Mr. Swett was renominated; but was defeated by 1,401 votes, while the rest of the Republican ticket was defeated by over 10,000. At the expiration of his term of office, December, 1867, he was elected principal of the Denman Grammar School of San Francisco, and entered on duty January, 1868. In 1871 he accepted the appointment of Deputy Superintendent of Schools in San Francisco, which position he held three years. While in this office he reorganized the city evening schools, classified and graded them, and introduced drawing and book-keeping on a larger scale than they had before been taught. The annual examination of teachers had been abolished before this. We think that Mr. Swett's sharp ridicule of the “examination mill” had something to do with its disuse. Every one had seemed to think that an annual examination was a matter of course, though he had taught the same school for years. It was custom, and no one had courage to break it until Mr. Swett attacked it with his irony and his usual vigor. Mr. Swett next attacked the subject of the “Annual Election of Teachers.” He says (*History of Public School System*): “From 1850 to 1870, at the end of each year all positions were declared vacant, and there was a general scramble for a ‘new deal.’ Occasionally there was the war-cry, ‘To the victors belong the spoils.’ If a director had a spite against some unfortunate pedagogue, vengeance descended when the board went into star-chamber sessions for the ‘Annual Election of Teachers.’ The doors of the star-chamber were besieged till midnight by anxious teachers waiting to know their fate. This senseless annual insult to a whole body of teachers originated in the New England district schools, when they were kept but part of a year, and when, of course, new teachers had to be elected. Strange as it may seem, it has been handed down from father to son, as a precious heirloom, and is still the law of nearly every city, town, and district in the United States, San

Francisco excepted." Through his persistent efforts it was abolished in 1870, and in San Francisco, at least, teaching is recognized as a profession, and teachers hold a life tenure of their positions, or "during good behavior."

In 1874 he was again elected to the Denman School, and in 1876 was promoted to the principalship of the Girls' High School, which he still holds.

Mr. Swett established the City Normal School in August, 1876, in a room in the Girls' High School building, with one teacher. It had long been a desire in his heart to have a school in San Francisco for training teachers. His hope was at last realized, and now the school has three regular teachers, besides special teachers in music and botany, and lectures by Mr. Swett. It has prepared six classes for teaching, and their certificates have been made valid for the city by the San Francisco Board of Education. The written essays of the class of 1881 have never been excelled by anything of the kind in the State.

LITERARY WORK.

In early life Mr. Swett was a contributor to various newspapers and magazines, such as *The New York Knickerbocker*, *The Pioneer Magazine*, *The Boston Cultivator*, *The Pacific*, organ of the Congregational church, etc. In later years his writing has been exclusively educational. He has been an editorial contributor to the *National Journal of Education* from the beginning, and to *THE PACIFIC SCHOOL JOURNAL*. The first school journal, the pioneer in this work, was the *Bookseller*, started by Mr. Swett in 1860. It was not well sustained by teachers, and at the close of the first year it was suspended. In connection with Prof. Swezey, he after this edited the *California Teacher* for five years.

STATE REPORTS.

Mr. Swett made three State reports. The first biennial report is the largest and most complete.

BOOK WORK.

Besides the large amount of miscellaneous writing for journals which Mr. Swett has accomplished, he has been an author to a considerable extent. His is a kind of authorship that has entailed a large amount of labor, but which has not probably made him rich. Editing or originating school-books is a work that has not much romance in it, and often as little money. It has been principally a labor of love with Mr. Swett. His first work was "School Readings," a little book embracing selections from our best American poets, especially patriotic pieces, and intended for grammar schools. His second work was "Examination Questions," a work covering the ground of grammar school work in arithmetic. He next assisted Mr. William Swinton in writing his language series, his word-book series, and his geographies. These were published in New York by the Harpers, and by Ivison, Blakeman, Taylor & Co. In some of these, particularly the grammar and some of the language series, Mr. Swett performed a very large part of the work.

In 1876 he published a History of the Public School System of California ; this should interest at least the teachers of this State.

In 1878 he published his Normal Word-Book, embracing spelling, defining, word analysis, and synonyms, for use in grammar, normal, and high schools.

In 1880 his book on Methods of Teaching was published by the Harpers. It is a work of upwards of three hundred pages, comprising principles, directions, and working models for common-school teachers. The quotations from the advanced educators of the nineteenth century are alone, as stimulant and tonic, worth the cost of this volume, and they show how extensive Mr. Swett's reading has been in this direction.

Like many others doing pioneer duty, Mr. Swett has had to work with those who could not or would not appreciate the labor where results were in the future ; who could not see the end. He has had to contend with individuals and combinations, boards of education, committees, and legislatures ; has had to fight political hounds and secret, designing, heartless enemies. This has given him a kind of cast-iron manner at times ; but under it all beats a tender and noble heart, full of kindness and generosity to all in trouble or want. Many a man unknown on the great thoroughfare, or known only to be shunned, has found shelter under his roof, and gone on his way with hope kindled anew. With an experience of thirty years of California life, and an acquaintance in the profession in every one of the fifty counties of the State, we say, without hesitation and fearlessly, we do not know the man that will give that grasp of the hand, that is above all Masonry, that will so instinctively share his bed and board and purse with a poor teacher, as will John Swett.

In religious belief, we think Mr. Swett is a Unitarian. In his early course he caused some criticism, and alienated some persons, perhaps, by his views on the Bible in schools, and in regard to clergymen having anything to do with public school management directly. What his position is on this question may be best learned by the following statement from his official State report :

"The school law, then, is silent as to whether or not a public school shall be opened by the reading of the Bible or by prayer. It does not exclude the Bible ; it does not make the use of it compulsory ; it does not forbid the teacher from opening the school with prayer ; it does not compel him to do it. It leaves the whole question to be decided by the boards of education, trustees, teachers, and the people, as their judgment may dictate.

"The present is an age of the largest and broadest personal liberty of religious opinion ; the children of all classes are found in the common schools ; and the school officers and teachers should manifest a tender regard for the religious scruples of both Jew and Gentile, Protestant and Catholic, and hold the school free from any violation of the great principles guaranteed by the National and State Constitutions, that every man be left free to worship God as he pleases, and to teach his children his own religious faith.

"The great purpose of the common school is intellectual culture, as a foundation of moral and religious education: for without intelligence, religion degenerates into bigotry. It is left for the home, the Sunday-school, and the church to teach forms of religious faith and worship. If each does its work without interference with the other, the result will be harmonious. If the church attempts to make the public school both a church school and a Sunday-school, the result will be disastrous."

We think that the public are satisfied that this regulation is the best for the school system in a community so thoroughly cosmopolitan as is ours, whatever might be said in states like Scotland or Switzerland.

In political opinion Mr. Swett has always been a pronounced Republican, with sentiments rooted down deeply in the granitic soil of the old Whig school that nourished Webster and Choate and Wilson and Sumner. He was an uncompromising Union man in the days when there were but two parties in the United States, and the fiery philippics of Starr King and the ringing ballads of John G. Whittier seasoned all the school diet given to his pupils in the dark days of 1861-65. The political record of schools and colleges has generally been to their credit, and their position unmistakable. One teacher, we remember, had all his property burned because he tried to make both parties sustain him; but no one could ever doubt the standing of John Swett.

In stature, Mr. Swett is below the average size. He is about five feet seven inches in height; but in his best condition has considerable muscular development, but no waste fat. He is strongly characterized by nervous, electric energy, and force of will, the same powers that enabled Kane, an invalid, to calmly explore the great glacier in Greenland, and again to go down into the sulphur smoke of a tropical volcano. It is these qualities that have carried him through so many trying scenes and enabled him to do so much work. The annoyances of school life and of political enemies has several times brought on severe sickness: in one case brain or typhoid fever. By careful diet, physical exercise, and an iron will, he has again and again risen from this valley of humiliation and shadow of death, and set his face like a flint toward the distant heights, where his hope lay, to carry out to completion the great purpose of his heart—the "life of life" to him—to give to California a system of schools by means of which every child in this great State of his adoption, without regard to condition or color or any other misfortune, could secure a good common-school education that would insure to the State a good citizen; to lift up the common school out of its degradation, to cleanse it of spot and stain, purify it, and dress it in white, adorned in blue and pink like a maiden, and make it cheerful, attractive, beautiful to the eye, and dear to the heart. He wished to be generous to it, and not pinch it by want and parsimony, nor limit it to the severe measurement of the last century. He desired to build it up into full proportions by additions to either end, extending the primary to the kindergarten, and the grammar to the high school and university, by State aid—by making property pay for education. He desired to train the child and make it

worthy of the State, and then he simply asked the State to come down from its dignified exaltation and recognize her child and care for it. This has been his ambition—his dream. It is this that has urged him on oftentimes to do the work of two or three men in a given time; to this he has given his days and nights. It has colored his thoughts through his waking hours; it has come to him in letters of flame in the visions of the night. If he does not reach the highest hight of his desire while he lives, he will, we are sure, be crowned by the children in the bright May day of that grand school millennium that is to come—"in the long distant morning."

HENRY P. CARLTON.

EDITORIAL DEPARTMENT.

THE GRADED SYSTEM.

THE graded system of schools which is now adopted by most of our cities has many advantages over the mixed schools of years ago; so has the practice, which naturally grows out of the graded system, of continuing teachers year after year in the same grade, its excellent features. But there are certain disadvantages in both which teachers and school officers are disposed to overlook.

Children differ widely in regard to application and mental ability, and it frequently happens that a bright boy or girl can do the work required in half the allotted time. When such cases occur, some provision should be made whereby they can be promoted before the other members of the class. If they are not, they will very likely contract careless and inattentive habits which in time unfit them for any thorough mental labor. Every experienced teacher will bear testimony to the fact, that it not unfrequently happens that one of the most prolific sources of annoyance in the school-room is an apt pupil out of employment. His active brain requires a field for exercise, and since there is no work to be done, his attention is taken up with play. This annoys the teacher, and unless she is above the average in tracing cause and effect, the annoyance reacts upon the pupil, causing misunderstandings and no end of petty trouble. Thus, in time, the bright, promising boy becomes, as the teacher puts it, a "decided nuisance." With a proper provision for promotion at the right time, a great amount of worry and vexation on the part of the teacher would have been avoided, and, what is of more consequence, the future prospects of the pupil would have been much brighter.

A decided objection to a teacher continuing in the same grade year after year lies in this: She becomes so familiar with all the details of her work that she is inclined to forget that there are many points which to the beginner are difficult of comprehension. She fails to put herself in the place of the pupil, and so takes for granted what really needs careful elaboration. This leads to discouragement on the part of the pupil, and to a conviction on the part of the teacher that the pupil is either indolent or stupid. Both these results are to be deplored. They may be avoided if the teacher will view every subject from the child's standpoint. The ability to stand on a pedestal and reach a helping hand down to the smallest and weakest of those who stand around with uplifted gaze marks the true teacher.

VACATION.

VACATION has come again—vacation for teachers as well as pupils. How shall the teacher spend it? What is a wise, prudent, common-sense way of using four or five weeks of time at the disposal of the wearied teacher? Certainly not in long journeys so much indulged in by some. Don't travel, then, unless at the utmost ease and comfort. Don't camp out with a crowd unless you can secure solitude and quiet when you wish it, and unless you can protect yourselves from chills and dampness and annoyance. The tired, languid mind and body crave rest—demand rest. We do not mean that one should be indolent—lazy—and should lounge on a bed and sleep a month; we do not mean that one should stubbornly ignore all books for that time; but drop the school-room duties and cares at once. Leave school behind, and change the scene in some way immediately. If it be possible for the city teacher, select some quiet spot in the country where the surroundings are pleasant and varied, where you can get sun and shade and fresh air and pure water and good food. Then keep still until you become completely rested. From that spot as a home make any little trips for the day that you can, with the proviso, always, that you come back to a good bed at night, early. Study natural history all day in the field, if you like it; but rest in a comfortable bed every night. Read such books as delight you, such as you so much wished to read and could not while teaching; only do not tire yourself in doing it. Be careful of your eyes, your brain, your whole body, your whole nature, and nourish and build it up to the best of your ability for the five weeks. Feed well, sleep well, rest—rest, and enjoy the luxury of it—of all these—and come back to duty refreshed—a new being, able to think and work with vigor, with energy, with enthusiasm.

C.

TEACHERS' SALARIES.

WE very much wish that we had the time to say in this number of the JOURNAL what we wish to say on this subject, and that we had the facts at hand to illustrate our statements. We wish we had before us the schedule of salaries paid out monthly in the different State, county, and city departments, to officials and clerks in the custom-house, in the appraiser's office, in the courts, in the sheriff's office, in the recorder's office, in the county clerk's office, in the police department, in the street department, in the assessor's office, and in every other place where position is obtained by political management. We should like to make the comparison between these and the salaries paid to teachers; to raise the questions, how much education, how much intellectual ability, how much skill developed by training, how many hours of labor, are required in these government offices and contrast each with the same demanded of teachers.

Then we should be pleased to hold up for public inspection a moment the censors that sit in judgment upon the whole class of unfortunate persons that are obliged to teach for a living—boards of examiners, boards of education, superintendents, committee on credentials, committee on classification, committee on "rules and regulations," the public press, reporters—item scribblers who are allowed to publish anything they choose to write; to ask to be shown who the

censors are that annoy in any similar manner the comfortable officials and clerks under them in the offices we have named. When economy is demanded anywhere, the schools get the first slap, and usually the primary teacher. She is a woman, and don't attend the "primary" election. When the new broom is brought out all appropriations for the school department must be reduced. Whoever heard a howl when money is asked for the State prison, county jail, street department, the hoodlum school, the Magdalen asylum? We should like to know.

C.

SCIENCE RECORD.

THIS RECORD is under the editorial charge of Prof. J. B. MCCHESNEY, to whom all communications in reference thereto must be addressed.

IT is reported that Pasteur is to visit Bordeaux to study yellow fever in the lazaretto, in order to find out whether inoculation will afford protection against the disease.

THE London *Lancet* says that there is absolute unanimity among medical men, whatever their other views on the drink question, that spirits, wine, or beer should only be taken with food.

THE gas-light companies claim to have gained by the electric-light movement in at least two respects: It has stimulated invention in the direction of improved burners and means of production, and has aroused a general desire for better lighting at night—a desire which causes increased consumption of gas.

BANDS of music are forbidden to play on most of the large iron bridges of the world. This is due to the well-known phenomenon that a constant succession of sound-waves, especially such as come from the playing of a good band, will excite the wire vibrations. At first these vibrations are very slight, but they increase as the sound-waves continue to come.

AN inventor at Hartford, Conn., has patented a belt which is made of iron wire, the selvages being brass and copper. The welt is of cotton, several threads being woven in without being twisted together. A double fabric is made, between which, or inside of which, a number of single heavier wires are inclosed to take the tensile strain of the belt.

IT is proposed this summer to convey electricity by means of a telephone or telegraph wire from the falls of St. Anthony to St. Paul, ten miles, and there operate a motor, which, by means of a belt and shafting, shall run the presses of the *Pioneer-Press*. This experiment proving satisfactory, the enormous power of the falls is to be put to work extensively in St. Paul.

A FRENCH engineer has a scheme for distributing cold air, during the warm season, through a line of pipes, to private consumers. He proposes to compress the air and cool it before sending it through the pipes. At the points of distribution the opening of a cock, by allowing the air to escape and expand, will, it is claimed, distribute throughout cellars, living apartments, or wherever else it may be needed, a pure, cold air, capable of preventing fermentation or putrefaction of organic matters, and of rendering the atmosphere of stores, manufactories, or dwelling-houses refreshingly cool during the most sultry days of summer.

IN a recent analysis of twenty-nine samples of quinine pills and capsules, not one contained the amount of that article called for by the label, though some of them came

near it. In two instances the so-called quinine proved to be cinchonidia, one of the lower and weaker alkaloids, from cinchona bark. It is important, especially in fevers, that the quality, quantity, and strength of quinine should be unimpeachable.

THE process of solidifying anthracite coal dust, and molding it into lumps so as to make the very best of fuel, is attracting much attention in the East, some extensive manufacturing establishments using it entirely. But what is of most interest in the West is the fact that it is claimed the process can be applied profitably to the dust of bituminous coal, and even to brown coals or lignite. The manufactured product is said to make a better fuel than the mined coal, and to be less liable to crumble or deteriorate in shipment.

TEACHERS' INSTITUTES.

NEVADA COUNTY.—The institute was convened at Nevada City, Monday, April 24th, at 10 A. M., and continued five days. The attendance was large, and the interest maintained up to the very last moment of adjournment, Friday, 29th, 4:20 P. M.

The officers of the institute were Jno. T. Wickes, Co. Supt., presiding, Jno. F. Riley, Vice Pres't., W. J. Rogers, Sec'y., Miss Eva Perkins, Asst. Sec'y.

Committee on Music.—Prof. Muller, Mrs. Geo. Smith, Misses Sophie Lawson, Lucie Gober, and Lou Dorsey.

On Introduction.—Mrs. Neil Kennedy, Mrs. Geo. Smith, Miss F. Doom, Messrs. J. G. O'Neill and M. P. Stone.

On Order of Business.—Ex-Supts. F. Power and Geo. Robinson, and Neil Kennedy.

On Resolutions.—Messrs. E. O'Neill, W. A. Cowdery, Wm. Herrod, H. H. McCutchan, and Misses Janet Henderson and Sophie Lawson.

The Institute was divided into classes for class-work, and several classes of school-children, from the schools of Nevada City, were obtained. Expositions of methods of teaching, by means of essays and written dissertations, were thrown in by way of diversity, but practical class-work was the most prominent. The design was to secure a working Institute.

In order to procure a fuller treatment of the branches taught in our schools, it was thought best to divide each into special departments, concentrating upon particular topics, and illustrating them in class-work.

Thus, *Arithmetic* was divided into seven sections, under different teachers; viz., Counting, by Miss Sophie Lawson, Primary class; Notation and Numeration, Jno. Parr; Fractions, F. Power; Measures of Dimension, H. Baldwin; Longitude and Time, W. Bird; Percentage, John Riley; Interest and Discount, by J. G. O'Neill.

Geography, into Primary, assigned to Miss Belle Cooper; Intermediate, Frank Nilon; Higher, Neil Kennedy.

Grammar, into Elementary, Carl Muller; Higher, Geo. Robinson; Word-Analysis, John Herrod; Spelling, John Barry; Composition, S. Holman.

Reading, Primary by Misses Lawson, Lisson, and Russell, with classes; Higher Reading by Supt., with Institute class.

Primary Reading was made the most prominent.

History, U. S., into four periods, with classes of the Institute, under Messrs. McCutchan, Ragan, W. Herrod, and A. Tiffany.

There were exercises in Penmanship, Prof. Geo. Horton; Book-keeping and Algebra, W. A. Cowdery.

Physiology, Eugene O'Neill.

Addresses were made by the Superintendent on opening; by M. P. Stone, on "School Discipline"; by M. B. Potter, on the "Unnatural Sciences"; by P. T. Riley, on the "Development of written Language"; and Essays were read by Marvin Power and B. Stewart, entitled, "Practice *versus* Theory," "Primary Physics."

The State Superintendent was present part of the time, and delivered two evening lectures, which were highly appreciated by the teachers and the public. The services of a special lecturer were dispensed with, because it was thought best to require all the teachers to take an active part in the exercises, instead of being obliged to support their weight on their desks and elbows listening to some learned "Theban" from afar. All "theory" makes the exercises monotonous, and the audiences tire under an avalanche of paper and essays. The county has a fine corps of teachers, able in themselves to sustain the interest of an Institute; and if our young teachers want any light upon the theory of teaching, they can get it most conveniently from Professor Swett's admirable compilation, in book form. Class exercises, accompanied by recitation questions and answers, and graphic illustrations upon the blackboard, are what an Institute most needs to make its exercises profitable and interesting.

SAN BERNARDINO COUNTY.—A four-days session of the County Institute was held in San Bernardino, commencing Tuesday, May 2nd. The proceedings were conducted by Superintendent Rousseau and Deputy Superintendent Brooke. Elmer Rowell was elected secretary. The first subject discussed was the comparative merits and demerits of the "Word Method" in teaching reading. In the afternoon, the subject of "Reading" awakened a lively discussion; but Primary Arithmetic, though well presented by Miss Martin, did not seem to be a favorite topic with the Institute. Some pointed remarks were made by Misses Putman and McDonald on object lessons, and Penmanship received the attention it deserved, from several of the best teachers.

Miss Ella Wagner opened the Wednesday session with a discussion on "School Management" in which a number of the members of the Institute joined. Miss Livingstone presented some remarks on "Rules." Mr. Rowland read a thoughtful and well-written essay on "Deportment on the Playground." Miss Hardenburg advanced some admirable ideas on the same subject. A lengthy discussion followed, on the propriety of giving prizes. Miss Bennett presented some ideas on school government which evoked much discussion, after which Mrs. Wilson took up the subject of orthography.

On Thursday the "respects" of the Institute were first paid to arithmetic, after which Miss Martin discussed mental arithmetic with earnestness. Grammar and geography received the usual compliments. The preparation of the daily lessons on the part of teachers was discussed, as was self-culture.

The work was opened on Friday by Mr. Brooke, who called the attention of the teachers to the importance of becoming familiar with the school law. Miss Daley then led off on "Co-operation of Parents," in which a number of teachers participated. The remainder of the time was spent in the usual routine incident to closing. This first report would hardly be complete without saying that a committee on music, which was a musical committee, presented a variety of excellent selections.

EDUCATIONAL INTELLIGENCE.

THE FÖEBEL CENTENNIAL CELEBRATION.—On the 20th of April, at Platt's Hall, a most interesting meeting was held to do honor to the memory of Friedrich Froebel, the founder of the Kindergarten system.

All those interested in the higher education of little children and the advancement of the race were invited to be present, and, judging from the large and refined-looking audience, one would be pardoned for think-

ing that all of San Francisco's best were there to prove their interest in these vital questions.

The stage was decorated with growing plants, and over the speaker's desk hung a portrait of Froebel, painted by the loving hands of a compatriot, and wreathed by other loving hands with the leaves of the laurel. At the appointed hour forty kindergarten teachers marched in, every fifth one holding a banner bearing the name of the schools represented.

In the unavoidable absence of Judge S. Heydenfeldt, president of the "Public Kindergarten Society," under whose auspices the meeting was called, Mr. A. McF. Davis very kindly and efficiently performed the duties of chairman. Into his opening remarks he ingeniously wove the substance of the speech he was to have made later on the programme upon the "Relation of the Kindergarten to the Public Schools," showing in a most convincing manner the close bond which should unite these two important educational factors.

Rev. J. E. Benton's "Sketch of the Life of Froebel" followed, and the career of the good and great man unfolded before us a panorama of noble thoughts and acts, lighted up by the enthusiasm of the speaker.

This was fitly followed by a memorial hymn to Froebel—words by Mrs. K. S. Wiggin—and the voices of the teachers blended as one to give thanks to "childhood's friend."

Mr. W. B. Ewer, of the board of education, gave an interesting *resume* of the spread of the system, showing that from a little unknown German town this wonderful work had spread through the civilized world, and in our own country alone one city could boast of seventy schools conducted on the principles of a man who saw the light only one hundred years ago.

The erudition and eloquence of Prof. Albin Putzker, shown by the style in which he treated his topic, "Tendencies of Modern Education," delighted his hearers, and the University of California is to be congratulated upon having among its preceptors one whose earnestness and enthusiasm must prove contagious to his pupils.

The second part of the evening's enter-

tainment was opened by Mrs. Sarah B. Cooper, who charmed the audience with a womanly and earnest talk on "Our Charity Kindergartens." She gave a brief history of their growth in San Francisco, weaving into her remarks a noble tribute to the pioneer in kindergarten work on this Coast, Miss E. Marwedel, who expects to represent San Francisco at a "Froebel Convention" to be held in Detroit in June. Mrs. Cooper also gave a list of kindergartens in other cities and towns of our State, together with a statement of their present condition and prospects. It is needless to say that the speech was frequently interrupted by well-deserved applause.

Three kindergarten songs were now given by the forty teachers mentioned before, and for precision in time, grace of motion, and harmony of tone were unexcelled by any chorus ever heard here. The listeners demanded *encores* to two of the songs which had delighted them so much.

Prof. Hilgard's speech, which is here given in full, ended the programme, and the audience reluctantly dispersed, after having enjoyed a feast of reason and a flow of soul.

CONTRA COSTA COUNTY.—The County Teachers' Institute convened at Walnut Creek May 2nd, and held a four days' session. After the usual preliminary work necessary to organization, Prof. Volney Rattan and Prof. Allen discussed Arithmetic. Prof. Rattan then presented the subject of "Natural Science in the Country Schools," and in the evening the same gentleman delivered a lecture on "Sound."

The Wednesday's session was opened with a discussion upon Language, E. H. Jamieson, A. J. Young, and Prof. Allen taking a part. Prof. Allen gave it as his opinion that the principal thing in the study of language was to cultivate in the children the appreciation of pure literature, which should in time supplant the trashy periodicals with which the country is flooded. Natural Philosophy was presented by Prof. Rattan, who illustrated the properties of light by several very simple and ingenious experiments. The subject of Primary Reading was handled by Prof. Allen in his

usual able manner. By request of members of the Institute and visitors, Prof. Ratten presented some further remarks on the subject of Sound. He also discussed the subject of Botany, confining himself almost entirely to plant growth. Mental Arithmetic was ably discussed and illustrated by T. H. McCarthy. Prof. Allen and State Supt. Campbell made some excellent remarks upon the same subject.

The subject of Geography was the first subject discussed on Thursday. Mrs. J. Weeks, Prof. Allen, and others participated. "Language in the Lower Grades" was presented by Prof. Allen, "School Management" evoked considerable discussion. State Supt. Campbell presented an interesting paper, and was followed by Messrs. Lyon and Collins upon the "Benefits of Friday Afternoon Exercises." In the evening Prof. Allen delivered a lecture on Education.

The Friday's session opened with an interesting paper upon the subject of "Drawing in the Primary Grades." Supt. Baily followed with some interesting statistics concerning the schools of the county. Book-keeping and Word Analysis were discussed. The Committee on Resolutions reported, after which the Institute adjourned.

PLACER COUNTY.—Miss Mary Jamison of Ophir is teaching in Santa Cruz County.

Miss Octavia Wetmore, during the past year principal of the Penryn schools, has left for the Lone Star State.

Mrs. Lottie A. Billette, who taught the primary department in Ophir for three years, resigned some weeks ago to accept the same position in the Modesto schools. She was succeeded by Miss Minnie Eicke.

The Ophir schools, R. O. Faulkner principal, closed on the 24th of April. The prominent feature of the closing exercises was the presentation, by Superintendent O. F. Seavey, to Miss Kate Higgins, of the first diploma of graduation from the public schools granted in the county, Miss Higgins having previously passed an examination, partly in writing and in part oral, upon questions prepared by the Board of Education. Superintendent Seavey conducted the examination. Miss Higgins

passed in the following branches, with an average standing of eighty-seven per cent.: Orthography, Grammar, Written Arithmetic, Geography, Reading, Word Analysis, Mental Arithmetic, Oral Grammar, History of the United States, Composition, Penmanship, Algebra, Natural Philosophy, Physiology, Industrial Drawing, Music, Book-keeping, English and American Literature, Botany, Constitutions of the United States and California.

MONTEREY COUNTY.—The Oak Grove school, J. G. Bennett teacher, is progressing finely.

A three-days session of the County Institutes was held, commencing May 23rd, in Central Hall, Salinas City.

Miss Robert is teaching at Innsdale. The attendance is large.

The citizens of Paris Valley have recently erected and furnished a comfortable school-house.

The Soledad school is flourishing under the efficient management of Mr. Laird.

The Monterey schools are in a flourishing condition. The teachers are J. A. Riley, principal, Katie A. Perry, Flora Conover, Jennie Hammond, assistants. The school-house was formerly the old court-house. The bell that calls the children to school was used by the priests of Carmel in the time of Junipero Serra, 1770, to call the Indians to church.

HUMBOLDT COUNTY.—The County Institute will be held the second week in June. It is expected that State Superintendent Campbell and Professor Allen will be in attendance.

The Rohnerville schools opened April 3rd, with George A. Kellogg and J. N. Shubbles as teachers.

There were twenty-two applicants at the last semi-annual examination. Certificates were granted as follows: J. N. Shubbles, George Underwood, first grade; Miss Dora Newman, Miss L. A. Byard, N. Johnson, Lewis Gober, and J. W. Jamison, second grade.

SOLANO COUNTY.—Professor C. B. Webster of Dixon is spoken of as a candidate for County Superintendent of schools on the Republican ticket.

At a recent meeting of the board of education, County Superintendent Sutphen was appointed a committee of one to make special inquiries of teachers as to any suggestions they may wish to make concerning the course of study. A sensible idea.

TEHAMA COUNTY.—J. G. Barkley, in the *Tehama Tocsin*, advocates a uniform school system, with certain prescribed methods, by which teachers should instruct, under the supervision of the County Superintendent.

E. S. Campbell and T. H. Gates have been appointed on the Board of Education. Mr. Campbell was reappointed.

SONOMA COUNTY.—A. G. Burnett, principal of the Healdsburg schools, publishes monthly in the local papers the names of those pupils who receive ninety per cent. in scholarship, deportment, attendance, and punctuality.

Alice E. Colby of San Francisco is teaching her second year on English Hill.

A. W. Mock teaches the school at old Mark West.

J. M. Davis is teaching the James District at Arcata.

DEL NORTE COUNTY.—The *Del Norte Record* has a teachers' column, in which school reports and matters of general interest pertaining to a common school education are published. It is edited by Max Lipowitz. It is bright and breezy.

Ellensburg has a new school-house.

COLUSA COUNTY.—The school trustees of Colusa have awarded a contract for building a new school-house. The amount of the contract is \$9,488. It is to be completed in time for opening school in September. A high school is to be established, to receive pupils from all parts of the county. The course is to be thorough and practical, and fully equal if not superior to any afforded by many of the so-called colleges.

SANTA CLARA COUNTY.—The County Institute met at the M. E. Church, Wednesday, May 3rd; L. J. Chipman was elected President and H. M. Lawson Secretary. After the appointment of the usual committees, John Manzer gave a short talk on Mental Arithmetic, and G. E. Lighthall followed on the subject of verbs. Professor Oliver ex-

plained the use of the tellurian, and Professor Worcester of the Garden City Commercial College gave a lecture on Book-keeping; S. K. Reynolds spoke on "the uses of the Dictionary." Miss M. Walsh's class of the Santa Clara school gave an exhibition in reading. Professor Norton spoke on Geography. Mr. Cosgrove spoke briefly on the subject of reading, and exhibited Appleton's Charts for beginners in this branch. In the evening Rev. R. Bently delivered a lecture upon "Oxford and Cambridge." On opening the Institute on Thursday a solo was sung by Miss Lina Hillman. A talk on "Absence and Tardiness" was given by John Manzer. Miss M. J. Titus spoke on "Composition." Professor Norton continued his lecture on "Geography."

In the evening Professor H. B. Norton lectured in the Normal school on "Electricity and Matter."

On Friday the Institute opened with an instrumental solo by Miss L. F. Keller, and was followed by Miss Jennie C. Hart with a vocal solo entitled "The Bloom on the Rye." Mrs. M. F. Reed put her class through their exercises in mental and written arithmetic. Miss M. J. Titus addressed the meeting on the subject of composition. Miss Nora West gave a recitation called "Lost and Found." Professor J. C. Gilson, City Superintendent of Oakland addressed the meeting on the uses of the school cabinet. Miss Jennie Wise followed with a recitation "The School Master's Guest." Professor Gilson showed by objects the means of teaching measurements and weights. After some vocal music, Professor A. W. Oliver delivered a lengthy lecture on "The Schools of the Future." Miss Desimore followed with a solo, after which Professor Blackmar delivered a highly interesting and eloquent lecture on the "Origin of German Literature."

The Committee on Resolutions reported: That hygiene should be given from the eighth grade through the entire course; that the instruction in the grammar grades should be of the most practical character; that methods of instruction that shall enable pupils to become self-supporting at an early age be encouraged; that book-keeping be

made a prominent study of the first and second grades; and several others, with the usual vote of thanks.

The Institute was dismissed by Superin-

tendent Chipman with a short congratulation address.

In the evening State Superintendent Campbell lectured.

NEWS RECORD.

Foreign and Domestic.

The *Herald's* special from Irkutsk, Siberia, says: "The steamer Rogers, which left San Francisco last season in search of the Jeannette, was burnt and sunk off the Siberian coast. The officers and crew were saved."

At last, after many premature announcements, the official statement is made that Prince Gortschakoff, the most subtle of diplomats, retires, at his own request, from the Russian Ministry of Foreign Affairs.

The reported outbreak of a revolution against President Salomon in northern Hayti is confirmed. Martial law has been proclaimed.

It is stated that a letter has been received at Paris from the long-missing Henry M. Stanley, saying that his great expedition is prospering. He was far up the Congo River.

Charles Darwin, the eminent scientist, died on the 20th of April. He was over sixty years of age.

A fearful disaster occurred on the Mississippi river recently, in the burning of a steamboat near Memphis, Tenn., by which thirty-five lives were lost.

The house committee on education and labor has decided to report a bill appropriating \$10,000 for general educational purposes.

The Austrian polar expedition has left for the north.

General Hurlbut, late United States Minister to Peru, died suddenly of disease of the heart on March 28th, at Lima.

The southern floods are subsiding, but damages from overflow are still going on.

Senate confirmed John Russell Young of New York minister to China, and C. A. Logan minister to Chili.

The Spanish steamer Yruac Bat, Captain Ugarte, from Liverpool for Port Rico, came in collision with the Royal Mail Company's

steamer Douro, from Brazil, off the coast of Finisterre, Spain, recently. Both steamers were sunk.

Educational.

Washington University at St. Louis has 1,285 students and 80 professors.

Instruction in German in the public schools of St. Louis costs that city \$100,000 annually.

There is an average daily attendance of 15,357 in the New Orleans schools—about forty pupils to each teacher.

The teachers of French in England are about to form a mutual benefit association, and Victor Hugo has consented to be its president.

The Surrogate of New York admits to probate the will of Samuel Wood, securing the establishment of a College of Music, to which he bequeathed the princely sum of \$1,500,000.

The total expenses of the Boston public schools for the past financial year amounted to \$1,559,677.50. Of this sum \$30,324.29 was devoted to the maintenance of the evening high and elementary school.

There was a falling off of more than sixty thousand in the public school attendance of New York last year, as compared with the year before. The total receipts for common schools was \$11,994,716; expenditures, \$10,808,802; paid teachers' wages, \$7,775,705; repairs, \$1,467,361; value of schoolhouses, \$31,091,630; number of persons in the State between five and twenty-one, 1,662,818. The school attendance was 1,021,282, while last year it was 1,081,593.

Mrs. A. H. Putnam has taken charge of a free training class established at Chicago by a committee of influential ladies and gentleman. The aim of the committee is to provide teachers for charity kindergartens to be established in different parts of the city.

Miss Sarah A. Stewart has been appointed directress of public kindergartens in Milwaukee, Wis. Miss Stewart was formerly

principal of the normal department of the city high school. She spent last year in Europe, where she devoted much time to the study of kindergartens.

PHILADELPHIA. — An association was organized in Philadelphia last spring to promote the efficiency of education. It advocates the appointment of a superintendent for the 105,541 pupils in the schools. It will invite Col. Parker, the organizer of the Quincy system, to lecture on his method in Philadelphia.

The Board of Regents of the State University of Nebraska have instituted a chair of Didactics, or Theory and Art of Teaching, and have elected ex-State Supt. S. R. Thompson to this professorship. As an educator, Prof. Thompson is so well known that the wisdom of the regents in choosing him to fill this chair will not be questioned, and the teachers of the country will approve the choice.

The Boston University has received \$2,000,000, left to it by Isaac Rich of that city. The University is co-educational, and has made a record that justifies the confidence shown by the capitalist.

The Governor of Texas has called the regents to meet at Austin to make a permanent organization preparatory to the establishment of a State University.

The King of the Belgians has instituted a prize of twenty-five thousand francs (\$5,000)

for the best work on the teaching of geography in various grades of schools. Belgians and foreigners who desire to compete for the prize must send their work, printed or in manuscript, to the Minister of the Interior, Brussels, before Jan. 1st, 1885.

At the meeting of the Board of Estimate and Apportionment of New York City, Dec. 10th, the estimates for public education came up. The board of education wanted \$3,836,925; but the board of estimates and apportionment said \$3,500,000 was sufficient. So \$3,500,000 were voted, and it is greatly feared that reductions in teachers' salaries will have to be made in that city.

The New York *Sun* calls Columbia College the "most richly endowed educational institution in the Union." Its funds amount to \$4,800,000, or nearly a million more than those of Harvard.

Miss H. Carter, a teacher among the Chinese in Boston, writes: "It is not unusual to find a man who learns the alphabet and a few words in a single lesson. One pupil of more than twenty five years learned to read so rapidly at his weekly lesson, that he could study intelligently the Sunday-school Bible lesson in Isaiah iv. at the end of five months.

Amherst College will receive \$50,000 for its library fund from the estate of the late Joel Giles, a Boston lawyer, who was for one year a member of the class of '25.

BOOK NOTICES.

CHEMICAL PRIMER. An Elementary Work for use in High Schools. By S. P. Meads. Oakland, Cal.: Pacific Press Publishing House, Twelfth and Castro Streets. 1882.

This is a remarkably attractive little textbook upon this difficult science. It is intended to supply all that a high school can give—and this in one term—and it is a wonderful condensation. The author does not waste any words nor any time in *show*. If we may judge of his style of teaching by his preface and "brief suggestions mixed," we should say he kept things *red hot* in his class room. We consider the book a model of nice work—a great credit to the author and to his publishing house. It has already been adopted by the Oakland Board, the

San Francisco Board, and is, we believe, indorsed by the State University.

EUROPEAN BREEZES. By Marie J. Pitman (*nom de plume*, Margery Deane). Boston: Lee & Shepherd, publishers. New York: Chas. T. Dillingham.

If the reader has it in mind to go to Europe, buy this book. If you cannot read all, read the last chapter. It will pay you. If you cannot follow the author everywhere, select your route and read. You will be abundantly entertained. Bancroft & Co.

PRESIDENT GARFIELD AND EDUCATION. Hiram College Memorial. By B. A. Hinsdale, A.M., President of Hiram College. Boston: James R. Osgood & Co. 1882.

This memorial volume of President Garfield—a very interesting and instructive book—consists of two parts: The first made up of the details of his life at Hiram, as given in the sketch and in the memorial addresses. The second part contains his educational speeches and addresses. It must be charming to everybody who loved Garfield; but it is an exceptionally valuable book to all young persons in the formative stage of character. The life of Garfield from twenty onward is full of vigor, energy, and independence of spirit, and therefore full of suggestion. It contains a fine portrait.

STUDIES IN ENGLISH AND AMERICAN LITERATURE, FROM CHAUCER TO THE PRESENT TIME. With Standard Selections from Representative Writers for Critical Study and Analysis. Designed for use in High Schools, Academies, Seminaries, Normal Schools, and Private Students. By Albert N. Raab, Ph.D., Principal of the Central State Normal School, Lock Haven, Pa., and Author of "Lessons in English," "Practical English Grammar," etc. Philadelphia. 1882.

The author says he edited this book because there seemed to be a necessity for it in order to teach literature successfully. We do not at all agree with him in this, because we think the subject has been often taught very successfully before his attempt, and we do not clearly see how he has added anything of special value to the means we have enjoyed. He endeavors to combine the history of literature with study of English classics, introducing also analysis and grammar, and the questions at the bottom of the pages is a good feature, and suggestive to the teacher. The critical studies have been limited to twenty-seven English and twenty-three American authors; but the list of contemporaneous writers is a valuable feature for the young student.

LEAFLETS FROM STANDARD AUTHORS. WHITTIER. Poems and Prose Passages from the Works of John Greenleaf Whittier. For Homes, Libraries, and Schools. Compiled by Josephine E. Hodgdon. Illustrated. Boston: Houghton, Mifflin & Co. 1882.

Miss Hodgdon has done a good work in these leaflets in bringing to the schools and

the public generally a mental food prepared in such a delicious form. It is a positive delight and charm to look over this collection. Keats's immortal line was never more intensely realized than in the pictures and words of this little wreath of songs: "A thing of beauty is a joy forever." Children can but grow better on such diet. Falling into any community, such works must act as a redeeming, purifying power. The thanks of all teachers are due to the compiler and to the publishers for such a treat.

PHYSIOGNOMY. A Practical and Scientific Treatise, being a Manual of Instruction in the Knowledge of the Human Physiognomy and Organism, considered Chemically, Architecturally, and Mathematically. Embracing the discoveries of Located Traits with their Relative Organs and Signs of Character, together with the Three Grand Natural Divisions of the Human Face. By Mary Olmstead Stanton. San Francisco: San Francisco News Co. 1881.

The author says: "In sending forth this little book, I am impelled by my desire to benefit the masses of mankind." This is a commendable object. They need benefiting; but we are afraid the masses will not be greatly helped by a treatise on evolution or scientific physiognomy. This is an interesting subject to the student—to every earnest reader. The study of character as developed in any way is always interesting. We are not prepared to say whether this is a simple development of true scientific principles or not. We are not yet in a mood to admit the truth of Haeckel's conclusions on evolution, and cannot therefore speak confidently as to the truth of this work; but it will be interesting reading for all inclined to study character, and the illustrations will furnish basis for much enjoyment. We do not understand the "basic principles" of the work, and do not see what chemistry has to do with the jaws, or architecture with the eyes, nose, and ears, and why they should be so located. The author names four of the most noted writers on physiognomy, from Aristotle down—men who developed the subject and wrote much on it—and then says: "Should one from the twelfth century return to earth

now, and ask what we know of the meaning of man's physiognomy, we should say, "Nothing at all." She takes the position that "mind inheres in the entire organism, and the brain is only one source of the mind." She says: "'Scientific physiognomy' gives the most comprehensive theory of the mind of any work hitherto presented to the world."

As soon as we can read it more carefully, we can judge better. The illustrations are good; the volume well printed. To be had of the author.

OUTRE-MER. A Pilgrimage beyond the Sea. By H. W. Longfellow. Revised Copyright Edition. Boston: Houghton, Mifflin & Co. The Riverside Press, Cambridge. Price, 15 cts.

This little volume, by the dear author who has just gone from us, whose face you can look upon here, was written almost fifty years ago. It consists of about thirty short tales and essays, supposed to be told by a benighted pilgrim by the fireside where he had craved shelter. It is delightful and fascinating reading for the young. Bancroft & Co.

AMERICAN CLASSICS FOR SCHOOLS. HAWTHORNE. Boston: Houghton, Mifflin & Co.

This is one of a series of books made up from the writings of our best authors and intended for school-room use. This contains some of the charming "Twice-Told Tales" of the author, and other selections to show his thought and style in his simpler class of writings. Bancroft & Co.

THE ECLECTIC QUESTION BOOK. Designed to assist Pupils in reviewing their Studies, also Teachers in examining their Classes, and Normal Schools and Teachers' Institutes in Class and Drill Exercises. By Alexander Duncan, A.M., author of "The Examiner, or Teacher's Aid." Van Antwerp, Bragg & Co., 137 Walnut St., Cincinnati; 28 Bond St., New York.

The object of this work is sufficiently indicated by its title. The questions cover the main part of a common school course of study. The questions should be such as can be answered from any series of common school series of text-books. These are adapted to Van Antwerp & Bragg's series.

Whether that may be an objection, use will determine. To be had of the publishers.

FIELD BOTANY. A Hand Book for the Collector, comprising Directions for Gathering and Preserving Plants and the Formation of the Herbarium. By Walter P. Manton. Illustrated. Boston: Lee & Shepard, Publishers. New York: Chas. T. Dillingham. 1882.

This little book is one of a series of hand books for beginners in natural history. One on the preparation of insects, one on taxidermy, and one on helps in natural history have been already published. The titles give their character.

LITERARY NOTES.

The North American Review has Andover and Creed Subscription, by Dr. Bacon, and Swedenborg, by O. B. Frothingham. We never opened a book of Swedenborg but once, and then shut it in disgust. We shall be glad to know the opinion of so capable a reviewer.

St. Nicholas is crowded with its charming attractions this month—pictures that will set the children wild, and so many good things said that we can hardly specify. There is the Witch-trap, and the Whirligig Club, and Twinegrams, and Magic Clover, and The Seals, and of course Longfellow—who can forget him?

Harper comes this month loaded as usual with good things. We suppose that magazine reading is the chief reading of many people, and really one can be tolerably educated on such mental diet as he gets from *Harper* alone. This number has Longfellow, with portrait, by George W. Curtis, which of course is good; In the Pines, by Mary Treat, with Gibson's imitable drawing; The Gates of Paradise, with an exquisite illustration; and four other illustrated articles, several good stories, the Easy Chair, and an appetizing Literary Record. We cannot but think *Harper* the best illustrated magazine ever published.

The Popular Science Monthly has a portrait and sketch of Charles R. Darwin, that condenses his life work into a form that can be held in the memory; also A New Theory of the Sun; Astronomical Panics; The Eye-like Organs of Fishes; and Cause of Tubercular Disease—as the leading articles.

The Atlantic Monthly has a poem on Longfellow, by Holmes, and one of the finest portraits we have seen of him; also an appreciative article on Longfellow by O. B. Frothingham, who believes Hiawatha to be the poet's masterpiece in thought and skill; an article on Darwin, by John Fiske; and an interesting article, The Poet's Birds. These are the leading articles.

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No. 7.

WHERE, AND WHY?*

THESE little words of interrogation are constantly springing up in the minds of men, and not unfrequently find voice in relation to all the affairs of life.

On this occasion, and in this presence, surrounded by those who cherish this College as their *Alma Mater*, and who have its interests at heart, let us consider them as applied to the subject of education. And in this connection, the word "education" is used in its narrow but popular sense, as referring to the training which is given in schools and colleges. In its broader and true sense, the word has no such narrow signification, and to the subject of it, the inquiry with which we open could have no application; for education, in its true sense, is prescribed by no curriculum, and limited by no circumstance of time or place. Man is so constituted that the methods of education once grasped, habits of thought and observation once acquired, the processes of absorption never cease: his education goes on, everywhere and under all circumstances, ending only in the grave. And who of us shall say even that it is ended there?

In its narrower but more popular sense, the word is improperly and improvidently used. That is only the beginning of education which we receive in school-room and in college hall. It is simply a system of training which fits the mind to acquire education, and involves theoretical instruction

* An oration delivered at the sixth annual commencement of Clear Lake College, June 1st, 1882., by HON. CHARLES NELSON FOX, LL. D.

in certain elementary principles, valuable only for the mental training which it brings, and as it may afterwards be put into practice in the broader school of experience in the practical affairs of life. But being, as it is, a system of mental, and to some extent of physical, training, it has always been and is every year becoming a more and more important question, Where shall it be given, and why be given there?

The people of every land ought seriously to ask, Where shall we educate our children? And more than one important consideration should enter into its solution.

One of the important considerations is, the object of and the end to be attained by education. A prompt and intelligent statement of this object and end is, to say that it is to enlighten the mind and enlarge the sphere of man's usefulness, and thus increase the measure of human happiness. But why will this enlightenment and enlargement increase the measure of human happiness? Perhaps the thought is not one to be received without hesitation; but when we have reflected upon it, we shall be compelled to acknowledge that the great merit of education lies in the fact that its processes are *leveling* in their effect, and that its end is attained by the leveling of mankind, and bringing men nearer to one common plane of ability and of power.

Look at the history of the barbarous races of men—of all men in a barbarous state. Here and there one rises up, endowed by nature with intellect superior to his fellows, and rules the rest with more than tyrant's power. His comrades are not his companions, but his slaves. His will alone dominates the tribe of which he was born a member, and over which he assumes a kingly power. Among such a people, and in the presence of such a man, there is no equality of right or of influence. The will of the mass is nothing; the will of the one is law. But, even among the same people, let the school-room be opened, and education take the place of ignorance; and lo, how the mighty are fallen! The scepter of the tyrant's power is broken. Not that he has become less, but that those who were once his abject slaves have become greater.

Education is, therefore, a process of leveling—not by pulling down, but by building up. It lifts the weak up to the plane of the strong. It will give to the great somewhat more of true greatness, and make them purer and better; but at the same time it lessens their hold upon power, by raising the masses nearer to their own level, and distributing the power among the many which under other conditions would be wielded by the few.

While the lifting processes of education apply to all having equal opportunity, they do not apply in equal degree. The lowly are lifted farther from the point at which they start than those of high degree; and though the race for mere human knowledge may be as unequal at its close as at its start, the prize of *human power* will be farther from the strong and nearer to the weak. In fact, among educated people, and under forms of government which, like ours, recognize no divine right to rule, 'tis not the men who are made by nature great that reign. The mighty intellects seldom reach, and never long retain, the power of government. They may be called to counsel, but they are never trusted to command.

The history of our own country furnishes numerous illustrations of this truth. Never in the history of the great republic has its greatest living intellect filled its highest place. Great men and good have filled its chair of state; but those of greatest mind have never held it long, and those whom the world acknowledges as having possessed its most exalted intellects have never reached that chair. Education, therefore, while the greatest of all elevating influences, is at the same time the great destroyer of one-man power—of the power of man over man.

The educated man reveres his country and his God alone. Even in an absolute monarchy he bows not to the king, but to the crown. With him, the majesty of man is nothing; the majesty of law is all. In kingly presence, though in peasant's garb, he stands fit and equal image of the maker of us all.

Again: every consideration of political economy, of patriotism and love of country, as well as of love for our children and desire for their future happiness and success in life, requires that during all the period of physical and mental growth they should live and be molded, physically and mentally, in the natural, the political or governmental, the business and the social atmosphere of the country and the people in which and among whom they are to work out the great problem of life, and of which they are to become, in their maturer years, an integral part.

Hence in every civilized country having a stable government, and in every enlightened community—in ours more than in any other—the unalterable answer to our question should be, *Educate at home.*

In colonial times, and in the early days of the republic, paucity of population and the general poverty of the people rendered a liberal education, necessarily, an education abroad; but in this close of the nineteenth century, multiplicity of the people, and a general distribution of wealth unparalleled in any other country on the globe, no longer renders this necessary.

If we have not already, in our own land, institutions of learning equal to any on the face of the earth, we, as a people, can better afford to establish them, and to bring to them the highest degree of educational talent the world can produce, than we can to make the sacrifices of American manhood that are involved in foreign education and residence. A few there are who, from pride of purse and ostentatious display of wealth, would probably send their sons abroad, even if they could get better training and a higher standard of instruction at home.

But if men would stop to consider the subject, only those would do this who are so vainglorious over sudden wealth that they are willing to sacrifice both sons and country for its display.

No boy reared by an American mother on American soil will ever make a good Englishman, Frenchman, German, or Prussian, however much we may educate him in English, French, German, or Prussian colleges. The spirit of 'seventy-six was born in him, and has grown with his growth; and he is so unfitted by nature for the social and political atmosphere of other lands that he can never work out the full measure of his capacity in any land but

this. And yet by residence and instruction in the political and social atmosphere of other lands during a portion of the period of his physical and mental growth, we will so warp, retard, and dwarf the tree that was planted here, so change the character of its fruit, as to utterly unfit him for the duties of American citizenship, and for a business life among American people, for all his remaining years. The American whom we send to Oxford may return with an English diploma, but he will return *without a country*. He will be fitted to act with no people, and to dwell in no clime. Unaffiliated with the people of any land, his life will be one of unrest and of discontent, useless here, and elsewhere powerless. Both his physical and mental composition will be a sort of " 'alf and 'alf."

In business life he will be incapable of successful competition with the men of either land. In the field of science or of letters, he will take no distinctive place, but will always be Boëotian: in politics uncertain and wavering; in statesmanship hesitating and forever in doubt. His life will be a constant illustration of the fable of the ass and the two bales of straw. Possessing the confidence of none, he will be an object for the ridicule of all.

We may consider the demands of patriotism as satisfied when we have educated an American in America. But when we consider the length and the breadth, the diversity of topography and climate, the diverse interests, habits of thought, methods of business, and tastes of the people of the land in which we live, our question is not yet answered; our duty not yet done.

Man's highest ambition should be to so live as to contribute most to the betterment of mankind; most to exalt his race. He is the greatest of men who contributes most to the sum of human happiness. To do this, he must be specially fitted, physically and mentally, not only for the business or profession, but also for the *place* in which he is to act. The rule applies as well to the animal as to the vegetable kingdom—to men as to plants. The best results cannot be attained by transplanting the palm to the frozen north, or the pine to the equator. Bearing this in mind, we again say, *Educate at Home*.

Even within the borders of our own land habits of thought and methods of business are so diversified that every man should receive the training which is to fit him for active life in the *place* where he is to compete with his fellow-men for the honors or the emoluments of life. If he is to work out the great problem of life in New England, then let him be educated in, and during his growth feed upon, the air of New England. If the great basin of the continent is to be the field of his labor, there let him grow, and there let him be trained. If Virginia is to be his home, let Virginia be the place where the tissues of his body and brain are formed, and his mind and his hand are trained. Thus, and only thus, can he know the temper of the steel with which he is to contend in the battle of life; thus, and only thus, can his own steel be tempered for the contest.

But above all, if your boy is to compete in the battle of life with the men of the West, let him grow in the West—in the West be trained—else the contest will never be equal. In the air and among the people of the West alone will he acquire the nerve, the action, the knowledge of method, and the habit of thought that can insure success in such a contest.

Many things contribute to this result and this necessity. The very atmosphere of the sunset land quickens both the pulses and the impulses of men. It may not contribute either to wisdom or longevity, but it certainly contributes to activity, physical and mental, and this leads to methods of business, to habits of business life, elsewhere unknown, and in the presence of which men unused to them stand appalled. It is not for us to say that these methods or habits are better than those of other lands; it may be doubtful if they are as good; but they are here; they are as fixed as the everlasting hills. Dependent in a large degree upon nature, and not upon art, ages may mitigate, but even time itself will never entirely eradicate them. During the lives not only of the present but of many succeeding generations upon this coast and in this atmosphere, men will continue to act upon the instant. With them, to conceive is to execute; to ask is to answer. Every proposition that arises in business, political, or social life is accepted or discarded at once. The thought and the act are almost concurrent. The word and the blow instantly follow. There is no long period of incubation or of hesitation.

In the East, the man who buys a farm studies the question for a year before he opens negotiations; then dickers for another year before the trade is completed. In the West, the man who buys a county conceives and executes the thought between the rising and setting of the sun. In the East, the man who finds a scholarship devotes a life-time to the problem, and finds it in his will. In the West, the man who finds a college does it in an hour, then sits him down, and in the flesh beholds the full fruition of his grand design. He of the East may live the longer, but he of the West must live the faster; and if he ever wears the laurels of victory, he must have been so framed and so trained as to win them by storming the fortress, and not by gradual approaches. 'Twas the men of the East who protracted the struggle; 'twas the men of the West who commanded the peace.

The climatic influence over the actions and in molding the characters of men is also supplemented in large degree by the circumstances of the settlement of this coast. Pioneers are always of the hardiest, most active, and most daring of the people from among whom they came. Here the country was peopled as if by magic; not from one place alone, but with representatives of the most pushing, the most energetic, and the most active elements of every country, and of almost every community on the civilized globe. And unlike the early settlers of most new countries, those who came here were not the uneducated of the restless and active classes, but were in large degree from among the trained and educated men of the communities from which they came. The very purpose for which they came—that of acquiring sudden wealth in the new El Dorado—stimulated them into new and added activity, and thus a race of men was planted here possessing the higher and better intellectual and physical qualities of every country and clime, finding both a clime and a soil adapted to the continued growth of those elements which had distinguished them at home, and made them become founders of a new empire in an unknown land. The result is, that the distinguishing characteristics of their early lives have become the settled habits of their maturer years,

and have been transmitted to their children in increased degree. And now, he that would live among them, compete with them, and share with them in their success, must grow up with them, breathe the same atmosphere, eat of the same meat, be trained as they are trained, and bred as they are bred.

It may be said that the facilities for higher education are not equal in the West to those in the East. *Then make them so.* Better exalt the schools, so as at home to exalt the men, than by sending the men elsewhere to be exalted unfit them for return. If you want your boy to live in the East, send him to school in the East; but if you want him to live in the West, *bring the school to the West.* This is the first duty we owe to our children.

It is one not difficult of accomplishment, for already our public schools are inferior to none and superior to most. Our university has its foundations laid broad and deep, and our people can soon make it equal to any in the land. Thanks and all honor to Hastings and Toland, its departments of law and medicine are already prepared to better fit men for the practice of those professions on this coast than they are likely to be fitted elsewhere; and in its every department its growth has been as unparalleled as has been the settlement and growth of the country itself. Scattered through the State are situated as here, other colleges and institutions of learning deserving and receiving the confidence of the people; colleges in sympathy and in harmony with the spirit of the people themselves. If they are not all that we ask, make them so; for as we build up our own colleges so shall we preserve the spirit and the energy of our own people, and add to their capacity and power for increasing the sum of human happiness and human greatness.

And above all, as we love our country, as we hope for its future, and for the happiness of our posterity, let us preserve its common schools, its universities, its colleges of letters and of arts, and all its foundations of general knowledge forever free from all party and sectarian control. There is no party which has not in it men who would sacrifice country to party. There is no sect which has not in it men who place love of sect above love to God or love of country. As governments are designed for the protection of all, let ours rest upon its schools, and they be maintained for the election of all. So shall the power of the mighty be stayed, and the will of the masses be law. So shall we transmit to our children one country. They shall be one people, and there shall be over them but one ruler—the Great Jehovah.

CHARLES NELSON FOX, LL. D.

Oakland, California.

THE RELIGIOUS ELEMENT IN SCHOOL AND COLLEGE.—In the schools and colleges of our country there should be a ruling religious element. It will be a good day for the world when every school and college will be conducted by active Christian teachers, who by precept and example will "allure to brighter worlds and lead the way"; who will show the harmony of truth as it appears in nature and revelation; who will give that direction to thought, as will lead them to look through nature up to nature's God.—*Prof. Bacon, Winona, Miss.*

THE BELLS OF SAN BLAS.*

WHAT say the bells of San Blas
To the ships that southward pass
From the harbor of Mazatlan?
To them it is nothing more
Than the sound of surf on the shore—
Nothing more to master or man.

But to me, a dreamer of dreams,
To whom what is and what seems
Are often one and the same—
The Bells of San Blas to me
Have a strange, wild melody,
And are something more than a name.

For bells are the voice of the church;
They have tones that touch and search
The hearts of young and old;
One sound to all, yet each
Lends a meaning to their speech,
And the meaning is manifold.

They are a voice of the past,
Of an age that is fading fast ;
Of a power austere and grand,
When the flag of Spain unfurled
Its folds o'er this western world,
And the Priest was lord of the land.

The chapel that once looked down
On the little seaport town
Has crumbled into the dust ;
And on oaken beams below
The bells swing to and fro,
And are green with mold and rust.

“ Is, then, the old faith dead,”
They say, “ and in its stead
Is some new faith proclaimed,

Atlantic Monthly for July.

That we are forced to remain
Naked to sun and rain,
Unsheltered and ashamed ?

“ Once, in our tower aloof,
We rang over wall and roof
Our warnings and our complaints ;
And round about us there
The white doves filled the air,
Like the white souls of the saints.

“ The saints ! Ah, have they grown
Forgetful of their own ?
Are they asleep, or dead,
That open to the sky
Their ruined Missions lie,
No longer tenanted ?

“ Oh, bring us back once more
The vanished days of yore,
When the world with faith was filled ;
Bring back the fervid zeal,
The hearts of fire and steel,
The hands that believe and build.

“ Then from our tower again
We will send over land and main
Our voices of command,
Like exiled kings who return
To their thrones, and the people learn
That the Priest is lord of the land ! ”

O Bells of San Blas, in vain
Ye call back the past again ;
The past is deaf to your prayer !
Out of the shadows of night
The world rolls into light ;
It is daybreak everywhere.

HENRY WADSWORTH LONGFELLOW.

Our earliest teachings must be *things*, and not words. In all our schools the knowledge of visible things should be made to precede the study of the artificial structure of language and the intricacies of grammatical rules and forms.—*F. A. P. Barnard.*

* [Mad River, published in the *Atlantic Monthly* for May, was the last poem that we received directly from Mr. Longfellow's hand. Shortly after his death several unprinted poems were found among his papers. Two of these lyrics were placed at our disposal. The first, “ Decoration Day,” appeared in the June number of this magazine; the second, to which a sad interest attaches itself as being the last verse he penned, is now laid before the reader. The manuscript bears the date of March 15th, 1882.—EDITOR ATLANTIC MONTHLY.]

A LEAF FROM MY SCRAP-BOOK.

AN INTERESTING GAME IN COMPOSITION.

PERSONAL DESCRIPTION.—Teachers will require each pupil to write about some other member of the class. Then let each description be read, omitting the name, and allow the class to *guess* the name from the description.

OUTLINES.

- I. *General*.—Age; height—tall, short, or medium; body—stout, slender, thin, spare, corpulent.
- II. *Complexion*.—Dark, brunette, blonde, light, fair, swarthy; color of eyes, hair, cheeks, etc.
- III. *Features*.—Forehead—high, low, etc.; nose—large, small, Roman, Grecian, *retroussé*; eyes—large, small, dull, expressive; mouth; lips; teeth; ears, etc.
- IV. *Dress*.—Material, color, style, etc.

Read and correct the following, taken from the exercises of a second-grade class:

I.

Miss —— is about fourteen years of age, tall and slender. She is a blonde, with fair complexion, blue eyes, and light hair and eyebrows. She has a full forehead, rosy cheeks, small mouth, red lips, and well-shaped nose, slightly *retroussé* (turned up). Her dress is in the latest style, with flounces, and is made of blue *satin de chiene*. It fits well, and is very becoming.

II.

Mr. —— is between forty-five and fifty years of age. He is very tall, and is neither stout nor thin; has a fair complexion, gray hair, blue eyes, light eyebrows, high forehead, fine, white teeth, full nose, prominent ears, small mouth, and pale lips. He generally wears a black beaver suit, white shirt, black neck-tie, shirt buttons, cuff buttons, and stove-pipe hat. His manners are neither graceful nor awkward, and he is generally very grave.

III.

Miss B——. Her age is sixteen, and she is rather tall and thin. She is five feet three inches and a half in height. Her complexion is rather dark; and her hair, eyes, and eyebrows are black. She has white, even teeth; but her nose is inclined to ascend upward. She has small ears, and a low forehead. She has a medium-sized mouth, and full lips to match. The material of her dress is velvet, and the color is black. The skirt of the dress is made *a la mode*; that is, trimmed with ruffles, beads, and bugles. Her polonaise is trimmed with lace and beads,

JOHN SWETT.

San Francisco Girls' High and Normal School.

OBJECT LESSONS.

QUESTIONS OF PRACTICAL VALUE.

IT is not intended that each topic under this heading shall be made the subject of a lesson each day; but it is expected that a lesson will be given each day upon some one of these topics, and that these shall be varied so as to embrace all the topics of the grade during each month. Much more time and a greater number of lessons will be required for some of these topics than for others.

Form.—It is very desirable to have the manner of presenting the lessons on this subject varied in each succeeding grade, so as to avoid the possibility of memorizing and reciting any formula. To secure this end, let the reviews of the matter taught in preceding grades be so conducted as to compel attention to the shape of the various objects. By requiring the pupils to describe the shape of objects placed before the class, the teacher will be enabled to test their knowledge of *form*.

Size.—This subject may be illustrated by various objects, as strings of different sizes and lengths, slips of paper of different lengths and widths, and small pieces of wood. The pupils will obtain clear perception of size and of length by being required to judge of the size and length of objects before them, and of lines on the blackboards, then to measure these and ascertain the approximate correctness of their estimates. Drawing lines of given lengths on the slate, followed by a careful measurement of them, is a valuable means for training pupils to accuracy in determining size and length by the eye.

Color.—The lessons on color, for this grade, should lead the pupils to perceive that some colors appear well when placed side by side, while others do not. For this purpose, lead them to compare *red* and *green* with *blue* and *green*; *blue* and *orange* with *yellow* and *orange*; *yellow* and *purple* with *blue* and *purple*, or *red* and *purple*. All lessons on color should be illustrated with colored objects. Pieces of ribbon, silk, worsted, colored paper, water-colors, etc., may be used for this purpose.

Human Body.—In teaching children the names and uses of the organs of sense, and their parts, special effort should be made to lead them to understand the subject by means of observations made with their own organs of sense. The actual seeing, hearing, feeling, tasting, and smelling of objects teach children facts which it is impossible to convey to their minds by means of the memorizing of language, however thorough and precise.

Animals.—The lessons on this subject should lead the children to notice the most distinguishing points in the structure of animals, and to see how their structure is adapted to their habits of life; for instance, how the webbed feet of some birds fit them for swimming, and how the long legs of others fit them for wading; how the strong claws and strong beaks of some birds enable them to feed on flesh; how the cushion-like feet of the cat enable it to walk noiselessly about in search of its prey; how the teeth of the cat and dog are fitted

for tearing flesh, while those of the rat and squirrel are formed for cracking nuts and gnawing hard substances.

The chief aim of these lessons being to train the pupils in habits of observing nature, so that they may be enabled to gain therefrom the most useful knowledge, the exercises should be conducted in such a manner as to lead them to notice accurately the structure and habits of the various animals that come within their own observation. The facts thus learned should be, by the aid of the teacher, properly classified as a foundation for subsequent study of the same subject. Prang's Natural History Series, with the "Manual" which accompanies it, will be found a valuable aid in giving instruction on *Animals and Plants*.

Plants.—The lessons on plants, in this grade, may appropriately lead the pupils to learn the most common *shapes of roots*, as turnip-shaped, branching, fibrous, conical, tuberous, etc.; also the *shapes of leaves*, as needle-shaped, arrow-shaped, egg-shaped, heart-shaped, hand-shaped, etc.; also the common *shapes of flowers*, as funnel-shaped, bell-shaped, pink-shaped, butterfly-shaped, helmet-shaped, cross-shaped, etc. By suitable exercises the teacher should also direct the attention of the pupils to plants which are used for food, and lead them to observe their mode of growth, form, uses, etc.

Objects and Qualities.—Two distinct classes of exercises may be given under this heading. One consists in training the pupils to distinguish given qualities, by using several objects having the same quality for illustration; the other, which is more appropriate for review exercises, requires the pupils to ascertain what qualities a given object possesses. Instruction on this subject cannot be considered complete without the use of both of these classes of exercises, in their proper order.

Observation and Comparison.—Habits of observing various objects, and noticing their several *shapes, colors, qualities*, and *materials* of which they are made, are exceedingly useful as a means of gaining knowledge; yet habits of *comparing* two or more objects, and observing what qualities, shapes, colors, and materials they possess in common, constitute an advanced stage of development, which not only adds additional power of gaining knowledge, but gives to the possessor marked practical ability in whatever sphere of life that person may happen to be placed.

In the preceding grades the pupils have been taught to distinguish and to name the common *forms, colors*, and most obvious *qualities*. It is therefore appropriate that they now should be trained to discover *which* of these forms, colors, and qualities may be found in given objects to which their special attention may be directed.

This kind of training should be so conducted as to develop the individual powers of the pupils. To accomplish this, the teacher must avoid asking such questions as might suggest to the pupil what to say, rather than leave him to discover the shape, color, quality, or material without aid. The teacher should aim to train the pupils to discover the principal characteristics of an object, instead of telling them what those characteristics are, and then asking them questions to see if they remember them.

Steps somewhat like the following are appropriate to be taken by the teacher in the giving of object lessons:

First. Write on the blackboard the words *Materials*, *Shapes*, *Colors*, *Qualities*, leaving room to write other words under each. Then place some object before the pupils, as a common slate, and request them to tell what materials, shapes, colors, and qualities they observe in it. As these are mentioned by the pupils, singly, the teacher may write the word on the blackboard under its appropriate heading. When the lesson is finished, the blackboard will contain something like the following:

<i>Materials.</i>	<i>Shapes.</i>	<i>Colors.</i>	<i>Qualities.</i>
slate,	oblong,	black.	opaque,
wood,	right angles.		brittle,
iron.			combustible.

Occupations.—The exercises on this topic should cause the children to ascertain the names of tools used in different occupations, and what is done with these tools; also what articles are made or produced. For instance, the teacher might write on the blackboard the word carpenter, shoemaker, or painter, and request the pupils to ascertain what tools are used by those who pursue the given trade, and report on the next day after the subject is thus assigned—the teacher writing the names of tools mentioned by the pupils on the blackboard, and the pupils copying them subsequently on their slates. These exercises will furnish an excellent opportunity for practice in observation, and in describing what has been seen. They may be made useful, also, for first lessons in composition.

The form in which these lessons may be placed on the blackboard is represented by the following:

<i>Name of Occupation.</i>	<i>Tools Used.</i>
Carpenter.	{ Saw, Plane, Chisel, Auger, Awl, { Hammer, Mallet, Rule, Square.
Shoemaker.	{ Last, Knife, Awl, { Pincers, Hammer.
Painter.	{ Pots, Brushes, { Knife, Ladder.

CABINET-MAKER.

<i>Tools Used.</i>	<i>Materials.</i>	<i>Articles Made.</i>
Saws,	Black-walnut,	Tables,
Planes,	Mahogany,	Stands,
Chisels,	White Oak,	Bureaus,
Bits,	Cherry,	Sofas,
Hand-screws,	Pine,	Bedsteads,
Squares,	Glue,	Desks,
Scrapers,	Varnish, etc.	Book-cases,
Mallet.		Sideboards.

THE FIRST DAY OF SCHOOL.

IN a few days thousands of schools will be opened—many of them by teachers who have had but little if any experience. Much, very much, depends upon the first day's work—especially the first morning's work. The success of a teacher entering a new school depends more upon the work of this first morning than upon any week's work in the entire school. Upon this morning he lays the foundation for his future success or failure. The children are full of expectation, wide awake, watching with Argus eyes every motion, every action, placing an estimate upon every word, comparing the teacher with his predecessor—in all imaginable ways weighing him and forming their estimate of him. If their opinion is favorable, he has secured an influence that will help him materially in his future work. If the opinion be unfavorable, this influence will be in his way for weeks, and it may be for months, whatever may be the character of his after work.

Then, since so much depends upon this *beginning*, it should be carefully studied and carefully planned.

A few days ago a teacher approached the writer and said: "I heard you lecture to an institute about ten years ago on 'the first day of school,' and it did me more good than any lecture I had ever heard before or have heard since. I was just about beginning my first school." The main points in that lecture were the following:

1. See to it that the school-house is in good condition—if the trustee does not put it so, do it yourself. The question is not, Can you afford to do it? but rather, Can you afford *not* to do it?
2. Be on the ground early the morning school is to open. Have all things in readiness. Greet the boys and girls pleasantly as they come in.
3. Have your work all carefully planned, and know just what you are going to do first, what second, what third, etc.
4. Let your opening exercises and "remarks" be exceedingly brief.
5. Having learned previously, either from the records of the last school or the pupils, just what classes belong in school, and the exact stage of advancement, proceed at once to assign work. Give each one something to do, and the shortest method is the best method. Perhaps the best subject to assign first is arithmetic. If problems are given suited to the various classes, and the work to be preserved for recitation, industry for a time is insured for all, though the lesson may be familiar to some. The arithmetic classes will include most of the school. New pupils, after a few questions, should be assigned temporarily to some one of the arithmetic classes. Next give attention to the "little ones." By such a course every pupil should have work to do inside of fifteen minutes from the time the opening exercises are closed.
6. Keep the ball rolling. Hear short recitations. Assign new work. Tax every energy to keep the children employed. Your success depends largely upon this.
7. You should be working on a regular programme by the second day.

8. As to order, begin as you expect to continue. It is a great, frequently a fatal, mistake to let the order "slide" for a few days, expecting to "tighten up" after the school is organized. Better begin too strict than too lax.

9. Announce few if any *rules*, but keep a tight rein in a steady hand.

10. Thorough mastery of the subject as to matter and method inspires self-confidence, and self-confidence inspires confidence in the children, and this is half the battle.

Indiana School Journal.

FRACTIONS FOR BEGINNERS.

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DIVISION OF FRACTIONS.

DIVIDING by a fraction is a compound operation, since it involves a multiplication as well as a division. The way to find the quotient—"Invert the divisor, and proceed as in multiplication"—is, in practice, simple enough; but the reason on which the rule rests is usually so much of a mystery to the young, that several views of the operation are here presented.

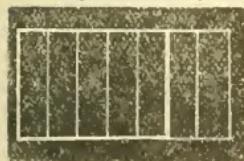
Example (1).—Divide $\frac{5}{7}$ by $\frac{2}{3}$.

(a) If we divide $\frac{5}{7}$ by 2, we get as the quotient $\frac{5}{14}$, each fractional part being made twice as small. Now, the divisor is not 2, but $\frac{2}{3}$, a quantity 3 times smaller than 2; hence, the quotient $\frac{5}{14}$ is 3 times too small, and therefore the required quotient will be obtained by multiplying $\frac{5}{14}$ by 3. This gives $\frac{15}{14}$. Combining both operations, we have $\frac{5}{7} \div \frac{2}{3} = \frac{5 \times 3}{7 \times 2} = \frac{15}{14}$.

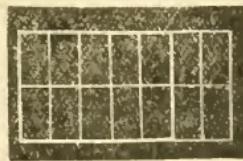
This may be illustrated by a diagram.

$\frac{5}{7}$

$\frac{2}{7}$



$$\frac{5}{7} \div 2 = \frac{5}{14}$$



$$\frac{5}{14} \times 3 = \frac{15}{14}$$



(b) Secondly, from the nature of division, the dividend must be the product of the divisor and quotient; that is, in the given example, $\frac{2}{3}$ of the quotient equals $\frac{5}{7}$ (the dividend); hence, $\frac{1}{3}$ of the quotient equals $\frac{5}{14}$, and $\frac{3}{2}$, or whole quotient, equals $\frac{15}{14}$, as before.

(c) Again, $\frac{1}{3}$ is contained in 1 three times; in 5, fifteen times; and in $\frac{5}{7}$ (the seventh part of 5), a number of times expressed by $\frac{15}{7}$. The fraction $\frac{2}{3}$ will be contained half as often, or $\frac{15}{14}$ times, as before.

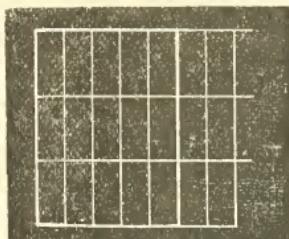
The expression $\frac{15}{14}$ times may be thus interpreted: the divisor is contained in the dividend once, and leaves a remainder which is $\frac{1}{14}$ of itself.

(d) To estimate the relative values of $\frac{5}{7}$ and $\frac{2}{3}$, when these quantities are of the same kind, we must compare them with a common standard. This is most easily done by reducing them to a common denominator.

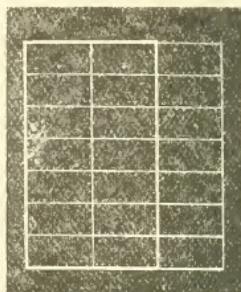
$$\frac{5}{7} = \frac{15}{21}; \quad \frac{2}{3} = \frac{14}{21}; \quad \frac{5}{7} \div \frac{2}{3} = \frac{15}{21} \div \frac{14}{21} = 15 \div 14 = \frac{15}{14}.$$

When the given fractions are thus reduced, the problem is simply to find how often one number of equal parts is contained in another number of like parts.

$$\frac{5}{7} = \frac{15}{21}.$$



$$\frac{2}{3} = \frac{14}{21}.$$



Any other divisor or dividend might be operated on in like manner, with the uniform result of finding the divisor inverted, and hence the usual rules:

To divide by a fraction, or by any number whatever in fractional form, "Multiply the dividend by the denominator of the divisor, and divide by the numerator; or, invert the divisor, and proceed as in multiplication; or, reduce the dividend and divisor to equivalent fractions having a common denominator, and then divide the numerator of the one by the numerator of the other."

$$\text{Example (2).—} \quad \frac{8\frac{1}{3} \times 2\frac{2}{5} \times 2\frac{4}{7}}{4\frac{4}{9} \times 1\frac{1}{3}} = ?$$

Reducing these numbers to fractional form, and inverting the divisor, we change the given complex fraction into an equivalent compound fraction:

$$\frac{25 \times 12 \times 18 \times 9 \times 3}{3 \times 4 \times 7 \times 40 \times 4} \frac{9 \times 9 \times 3}{7 \times 4} = \frac{243}{28} = 8\frac{19}{28}, \text{ Ans.}$$

That, in this operation, there is merely a change of *form* and not of *value* will be evident if we regard the quantity above the line as a dividend and the quantity below it as a divisor.

We obtain the second compound fraction from the first by canceling the common factors 2, 3, 4, 5, 5.

H. J. BYRNE.

If we consult reason, experience, and the common testimony of ancient and modern times, none of our intellectual studies tend to cultivate a smaller number of faculties in a more partial or feeble manner than mathematics. This is acknowledged by every writer on education of the least pretension to judgment or experience.—*Sir William Hamilton.*

A HOODLUM.

CHAPTER VII.—HIS LANGUAGE LESSONS.

THERE is no study taught in our common schools which is so barren of good results as the study of grammar. Begun at an age when the mind is unfit for such a study, taught in defiance of all principles of correct teaching, uninteresting in detail, and of little practical use, it comes as the ghost of the dead Latin grammar to torment the children of the foes of its forefathers.

Thanks to the common sense of the age, Latin grammar no longer worries the children of civilized people, but only lives a precarious life among the youth of the semi-barbarous East, where the fossilized colleges compel the seminaries to cut or to stretch the unhappy youth to fit their procrustean beds.

Of what use is it to have three or four languages to express one idea? Better have three or four ideas, and be able to express these ideas properly in your own mother-tongue. But some say that a knowledge of Latin and Greek will aid us in understanding our own language. So will a knowledge of Choctaw; but the time spent in acquiring those languages, if spent in the direct study of our own language, will give a far better result. It is notorious that many of the best Latin scholars use miserably poor English in their writings. A knowledge of Spanish is useful in this southern California, where many of the so-called Mexicans do not speak English; and Carl encouraged Donald to pick up as much of the Spanish language as he could by conversing with the boys at the foot of the mountain, and by occasional agreements to speak only in Spanish for an hour or two at a time.

At first Carl had to correct many errors of speech in Donald's English; but by never omitting to call the boy's attention to the correct form, Donald's speech grew more and more free from slang and grammatical errors; and after a few months but little trace of his former dialect remained, except when the boy became confused or excited, and then, like the half-forgotten brogue of a tamed Irishman, old habits of speech would for a few moments resume their sway.

If Donald made a mistake in the presence of other people, Carl would generally wait until they were alone before he reminded Donald of the error; or if the error was one which had often been mentioned before, a hint which the visitor could not understand would be gently given so as to avoid wounding the lad's self-respect. Yet sometimes it was necessary to wound a little, for "the wounds of a friend are better than the kisses of an enemy."

It was an almost invariable custom at Camp Comfort to spend half an hour reading aloud, and it is easy to awaken a love of poetry in the mind of any reasonably intelligent child, if the proper pieces are chosen at first. Whittier's ballads; Longfellow's Hiawatha, and Courtship of Miles Standish, and many of his shorter pieces; Browning's Pied Piper of Hamelin, and From Ghent to Aix; and very many of Mrs. Browning's beautiful poems—soon became familiar as household words to Donald. They laughed and commented upon the Biglow Papers, and the humorous poems of O. W. Holmes

and Saxe; and Parton's collection of humorous poetry was frequently used. A little book of epigrams sharpened the boy's wit, and a volume of fables and other books of fairy tales gave him a key to many of the allusions he saw in his reading.

By the time the above had been read, Donald was ready for the study of dramatic works, and Shakespeare became his evening text-book. Carl did not use a family edition of Shakespeare, which is supposed to suppress most of the vulgar expressions which blot the pages of the earlier writers. Donald could learn but little that was new in that line, and Carl preferred that the boy should have a correct idea of the morals and manners of those times, though he was careful to point out the fact that no writer of the present day who used such vulgar expressions would be tolerated.

Before reading a play, Donald read what Charles and Mary Lamb had written about it in their delightful little volume, and the characters were discussed, and their failings and their virtues were mentioned as though they were real historical personages, as indeed many of them are.

Donald had an active memory and a quick imagination, and he would often quote passages which he thought appropriate to the time. Then the two would read many a selection—Carl reading one part, and Donald the part spoken by some other character. Twice a week Donald was required to commit some shorter poem to memory; and of this exercise he became very fond, and it made a marked improvement in the language he used. The noble thoughts which the poets so beautifully clothed in appropriate words became in a measure his own; and new ideas, and new words to express those ideas, expanded his mind and made his speech more thoughtful.

The fruit takes its flavor from the food it consumes, and one cannot expect a generous growth if the roots cannot gather a plenteous support.

Much of composition work was connected with Donald's reading. Poetry was turned into prose; tales were read and written out from memory in the boy's own language; other stories were read half through, and Donald wrote endings to them which were afterwards compared with the originals. Suggestive outlines were given to be filled in. Nearly half of this work was oral, and though some of the original speeches and tales which the boy prepared were suspiciously like some he had read, others had quite a marked individuality. These compositions were a daily exercise, and Donald soon acquired a considerable ease and fluency of expression which seems to come to a few people naturally, but which can also be gained by very many who have no great natural gift in that direction.

It is said of some people that "they can tell all they know and more too." This may truly be said of many a writer who, being unskilled in the weapons he uses, displays not only the little he may know, but the ignorance he is not aware of. While it is impossible for any writer or speaker to convey to another the exact idea the writer or speaker has in his mind, yet the words used should bring up in the mind of the one addressed a kindred idea. No word has the same meaning in two different minds, and scarcely in the same mind at two separate times; for words grow in meaning as the mind grows in

learning, and we are but indifferent commentators on the language of others. Therefore is it of importance that the teacher should ascertain, as nearly as possible, what present ideas words convey to the mind of the pupil, so that errors may be corrected, and other ideas fastened to the words until they are the centers of a host of kindred thoughts. Carl required Donald to study words a great deal—their spelling, derivation, meaning, and pronunciation—for to the want of a proper study of these four the most of the changes in our language may be ascribed. Laziness and inattention slur the proper sounds of the letters; trying to conform to the pronunciation of the word, or to the spelling of another word of similar sound, acts upon the orthography; and ignorance of meaning and of derivation leads men to twist the meaning of a word to suit new uses until you can scarcely recognize its parentage. Others lacking new ideas to employ old words, dress up old ideas to look grotesquely original by using words in unusual senses.

Donald's word studies were drawn from various sources, and were made from original collections as much as possible. At one time he gathered all the names of newspapers he could find, and studied why they were called the Press, Times, Tribune, News, Chronicle, Bulletin, Union, Eagle, etc.

Then he overhauled a number of county registers, and made lists of the surnames he found there. One list contained those persons whose names were derived from the places where their ancestors lived; as, Atmore, Atwood, Washington, Hayes, Downing, Derby, Lincoln, Garfield, etc. A second list contained those whose names were derived from occupations or offices; as, Smith, Taylor, Clark, Carpenter, Butler, Draper, Goldsmith, etc. These two lists each contained more than a hundred names.

A third list had about three-fourths as many names, and contained those given as nicknames in earlier times; such as White, Black, Green, Brown, Broadhead, Bowles, Redman, Christman, Lucky, Old, etc. A subdivision contained those names which were derived from various animals; as, Bird, Finch, Jay, Drake, Bull, Hogg, Derby, Durbin, Fish, Lamb, etc.

A fourth list, containing those surnames derived from Christian names, was almost as long as all the other lists put together, for the Johns, Jacks, Jones, Peters, Willis, and others were scattered through every page of the county registers. One subdivision of this list contained those ending in son; as, Jackson, Jefferson, Madison, Wilson, Johnson, Harrison, Peterson, etc., numbering about sixty names. Another subdivision contained those ending in kin; as, Wilkin, Peterkin, Jenkins, Calkin, Perkins, etc. Other diminutive suffixes, such as cock in Hitchcock, Hancock, Wilcox, Alcott, etc., received due attention, and the sense of endearment which most diminutive suffixes carry with them was commented upon. The suffixes, or (Taylor), er (Hunter), ster (Webster), ley (Hensley), man (Norman), and various others; and the prefixes Mac (Macdonald), O (O'Connor), De or Du (De Long or Dubois), St. or Saint, and San—were also studied. Geography names acquired a new interest as their derivation was pointed out, and the literal translation of scientific names aided Donald to remember their meanings. Trench's "Study of Words," "English Past and Present," and "Glossary"; De Vere's "Studies

in English"; Haldeman's "Affixes"; Morris's "Accidence"; Max Muller's and Whitney's works on Language; Bain's Grammar; Skeat's "Etymological Dictionary"; and other works—were often consulted and read. De Vere's and Bartlett's Dictionaries of Americanisms were sources of much pleasure; and though Donald could not retain near all the information he found in those works and others, yet he did keep a great deal of it, for children learn such things more easily than older people; and Carl often commented upon the derivation of this word and that, for word study had long been a favorite pursuit with Carl. One who has never taught character pieces to children can hardly realize the pleasure Donald had in reading pieces in Irish brogue, Negro dialect, Scotch, etc. Like most boys of his age, he was fond of humorous pieces, and he delighted to read Burns's poems, the stories of Uncle Remus, Brudder Gardner's speeches, and other pieces in dialect which can now be found in almost every newspaper or magazine. It is surprising, too, the amount of reading which a boy can do, if a certain portion of every day is given to a systematic course of reading; and the pieces which were committed to memory, were often recalled while at their work, or going up and down the mountain trails. If only a love of good literature be awakened and kept alive by constant exercise, the rest of the work of literary culture is comparatively easy.

CHARLES M. DRAKE.

Santa Paula, Ventura Co.

A LESSON IN ELEMENTARY SCIENCE.

IT is proposed to introduce elementary science as a class-subject in the Mundella Code. It is put on a level with geography and grammar, and a syllabus is given in which mechanics occupies a very prominent place. This indicates the value set upon such kind of instruction by the department. I think I can trace the handiwork of one of the best-known and most highly esteemed of H. M. Inspectors. I am, as may be supposed, especially gratified to find my favorite subject thus treated. Of the direct encouragement given to the teachings of mechanics by the London School Board, I can speak from pleasant personal experience. It is no wonder it should be thus highly esteemed. It is the one subject above all others that lends its aid, in the words of Gambetta, to "that progress which is the development of that capital given by nature, and which is called reason." I suppose all teachers have read Sir John Lubbock's speech at York, as reported in the *Times*. I felt a certain personal interest in reading it. For a short time since, one of Her Majesty's Inspectors did me the honor to bring Sir John and Lady Lubbock to Gloucester Road to hear one of my lessons in elementary science. Well, I feel that when I am engaged in this kind of teaching I am, though in an humble sphere, a fellow-worker with those great men of mighty minds who met to listen to that remarkable address from their president.

I propose in this article to give an outline of the first lesson, dealing with matter in the three states: solids, liquids, and gases; the mechanical properties peculiar to each state. These are the words of the syllabus. If I had the wording of this, I should have said: "Matter: its three states, solid, liquid, and gaseous; the physical properties peculiar to each state." In order that the teacher should know what he is talking about, and clearly conceive a plan for best presenting the subject before juvenile minds, it is necessary that he read Tyndall's "Heat, a Mode of Motion," and especially Grove's "Correlation of the Physical Forces," besides the ordinary text-books of natural philosophy.

John Jones, come here; take this block of chalk in your hands; tell me what you know about it from only feeling it. Ans. It is rough. Anything else? Ans. It easily rubs off. Anything else? Ans. It is a square. Is he quite right, boys, in calling that a "square"? Ans. No, sir; it is a cube. Yes. Now, shut your eyes and tell me the shape of this (handing him the ball). Ans. Round. Again, boys, is he right in calling that "round"? No, sir. Yes, sir. Some boy says "yes." Why? Ans. Because it is round every way. It is; but the cube is also square every way, yet you said it was wrong to call it square. What is the proper word for this shape? Ans. A globe or sphere. Just so. Now, Smith, you come here. Put your finger in that basin of water and tell me its shape? Ans. I can't feel any shape. No, you can't. It has no shape, and you cannot give it shape of itself. See, I place the chalk on the table, and it remains there and keeps its shape. Now, I shall pour some water on the table. You see it does not remain there; it runs away. What do you think is in that pipe? Ans. Gas. I am going to turn it on, but not light it. I want you two boys in opposite corners of the room to tell me when you begin to smell it. (After a few seconds) I can smell it, sir. Yes, and so can I here. (A boy) I can smell it. (Another boy) And so can I. Yes, you can all smell it. Now I have turned it off. How much gas came out, think you, while it was turned on? Ans. This room full. Indeed? Do you know how many cubic feet that would be? Ans. No, sir. Well, then, this room is twenty feet long, twenty feet broad, and twenty feet high; and twenty times twenty times twenty is what? Ans. Eight thousand. Yes. Then how many cubic feet of space is there in this room? Ans. Eight thousand. Now, do you think that eight thousand cubic feet of gas passed out of that pipe during the few seconds it was turned on? Ans. No, sir. Yes, that is true. Now, boys, there was really only about one cubic foot of gas passed out while I turned it on. (A boy) Please, sir, how could it fill this room, then? Ah! that is just what I was about to ask you. (A boy) It spread. Spread? What spread? Ans. The gas. Do you know of anything else that would spread in this way? No answer? Well, suppose I bring a cubic foot of water—say that pail full—into the room, would it spread all over it? Ans. No, sir. How many cubic feet of water must I bring into this room to fill it? Ans. Eight thousand. And if I wanted to fill the room with chalk, how much? Ans. Eight thousand cubic feet. Yes; and yet it seems that one cubic foot of gas will fill it. (A boy, holding up his hand)

Well? Please, sir, I can make a cubic foot of water fill this room. Can you? How? Ans. Make it hot and turn it into steam. Yes; but then it would be vapor and not water. (A boy) I read in one of our library books that steam and water are just the same. Yes, so they are in composition; but water in a state of steam is not called water. You can turn the vapor into water by condensing it. But you have not answered my question as to how one cubic foot of gas can spread all over this room. Can any of you tell me? No one? Well, now listen. What would you call the smallest conceivable divisions of this gas? Ans. Molecules. Yes; there must be a certain number of molecules in a cubic foot of it, must there not? Ans. Yes, sir. Well, are there any more molecules in the cubic foot when it has spread all over the room than when it passed out of the pipe? No, sir. Then, what must have happened to the molecules? No answer? Look, here is a little heap of peas on the table. Suppose I wanted to make them spread all over the table, what must I do? Ans. Put them farther apart. Just so. Then, what must have happened to the molecules of gas? Ans. They must have gone farther apart. Yes; they separated from each other. Now, why do not the molecules of water in that basin, or the molecules of carbonate of lime in that block, separate from each other? Now, think. (A boy) There must be something to keep them together. Exactly so; there must be, and there is, and I will write on the board the name of "that something": "Attraction of cohesion." In the case of the gas, the molecules are not only not bound together, they fly apart. Tell me some word which is the opposite of "attraction." No one can tell? You two boys come here; stand together; now push each other away. There, you see, they nearly fell down. There was certainly no attraction. What was there? Ans. Repulsion. Just so. Now, one of you boys try and put your finger into that piece of chalk. You can't? Ans. No, sir. No, not very easily. Now, put your finger into that water. Yes; that is easily done. What was it you pushed apart in the water? Ans. The molecules of water. (A boy) I could push apart the molecules of chalk with a nail and hammer. Yes, you could; but that requires great force. So in which of those two things is the attraction of cohesion stronger? Ans. In the chalk. Now, take out your books and write: In solids, such as chalk, the attraction of cohesion is great; in liquids, such as water, the molecules move freely among themselves, for the attraction of cohesion is slight; in gases or vapors there is no attraction of cohesion at all, but repulsion between the molecules.

RICHARD BELCHAR.

In *Practical Teacher*, (England).

The study of language should not be put off until the latter part of the years of study; but should be practically followed from as early an age as the command of words will permit.—*Niemeyer.*

EDITORIAL DEPARTMENT.

WORK OUTSIDE OF THE SCHOOL-ROOM.

THE work of the teacher should not be confined to the school-room exclusively. Looking at it professionally, we find it has a peculiarity not possessed by the labors of the physician, the lawyer, or the clergyman. Doctors consider their duty performed when they heal their patients, and lawyers when they have carried their clients through the courts as the statutes provide. The teacher, however, cannot, in justice to himself, the profession, or the public, take such a narrow view of his duty as to act on the idea that he is only to labor during school hours. In many cases the parents of his pupils need instruction more than their children. This instruction is not of the kind he has been engaged in imparting during the day, but in one sense of far greater importance, since the education for the child must always depend upon this education of the parent.

The knowledge we refer to is that which pertains to a correct understanding of what may be called the educational problem. Every teacher who has taken pains to converse with the parents of his pupils upon questions pertaining to the kind, variety, and extent of their studies, fully realizes how crude many of their ideas are. Education is a science whose roots run deeper than many of us are aware, and it is not strange that those who have not made it a special study should fail to comprehend how much patient and deep digging is necessary before we reach the sources of its vitality.

The true teacher—he whose strength is fully enlisted in his work—will spend the school hours in teaching the children to read and spell and cipher, and such elements of the natural sciences as circumstances will permit; some of the remaining time at least will be devoted to instructing the parents in the relations which exist between education and crime, education and good citizenship, education and morals, education and success in life, the value of education to the individual and to the State, and thus the duty of the State to its youth.

It may be said these are momentous questions, and not well understood by many who claim a prominent position in our profession. 'Tis true, they are subjects of the greatest importance; and it is also true that many of us do not well understand them, to our shame be it said. But why is this? Are the subjects too abstruse for ordinary minds to grasp? Do they possess no literature? Are they questions which cannot be subjected to historical, experimental, or statistical methods? If they are, then we may excuse those of us who know little of these vital questions, and care less. But if our language abounds in works on these and kindred topics; if papers and periodicals are constantly discussing them; if journals of ability are devoted to their elucidation and discussion; if public meetings are held for the express purpose of disseminating this desirable information—then there can be no excuse for ignorance. Ignorance under such circumstances is a crime. Teachers thus guilty are indictable by the children they attempt to instruct, because they must fail to comprehend the vastness of the work in which they are engaged, and so do it all imperfectly. They are indictable by the parents of their pupils and the public they would serve, because they are attempting a work the alphabet of which they hardly know, and so are imposters. They are indictable by the profession they have joined, since they are ignorant of the

principles underlying its foundation and the real object and end of its work, and thus they bring disgrace upon the worthy and the noble cause in which they are engaged.

In this enlightened age, teachers should inform themselves on these and kindred topics, and spread their knowledge broadcast in the communities in which they labor. Whatever knowledge the general public may obtain on the science of education must necessarily be somewhat meager. It is your duty, teacher, to add to it. This you cannot do unless you have the matter well in hand yourself. Ground yourself thoroughly, have positive convictions founded upon accurate knowledge, and your influence will be felt, even at the ballot-box. You will thus educate the parents, and thereby the children will have opportunities which otherwise they could not have enjoyed. A double work will thus be yours.

We think it would be well to insist upon teachers giving more attention to relations which education bears to the general problems of life. This tread-mill work which so many teachers, so called, are satisfied in doing, is simply disgraceful to one of the noblest avocations in which an intelligent person can engage. It ought to be the duty of school boards to ascertain who of their teachers are interested in spreading throughout the community useful information on educational topics, and who make it a rule never to talk shop, as they term it, out of the school-room. Reader, to which class do you belong?

INSTITUTE WANDERINGS.

ON the 20th of May the editor of the JOURNAL left the city's "gentle zephyrs" behind, and journeyed toward the milder airs and warmer skies of Monterey. On either hand the yellow harvests nodded welcome to the reaper's scythe, and Nature smiled in the plentitude of her bounty. The great Salinas valley, in which is situated Salinas City, the capital of Monterey County, is one of the few sections of the State this season favored with abundant crops. Here the grain stood high and heavy, and everything betokened a prosperous year. On arriving at Salinas, a warm greeting from Superintendent S. M. Shearer and a number of his teachers gave promise of a pleasant sojourn.

We found Salinas City a lively town of about twenty-five hundred inhabitants, with an agreeable climate, and abounding in cozy homes. In business enterprise the town would not rank first-class; but among its professional men are a number who may properly be classed among the ablest minds on our Coast.

Prominent among those we must name our old friend Senator W. J. Hill, the editor and proprietor of the *Salinas Index*. This paper stands without a peer among the interior periodicals of the State, and compares favorably with the best portions of the metropolitan press.

Among the citizens were found many people of culture and taste, interested in the development of the country and the progress of education. Chief among those we may name Mr. S. D. Cutler, formerly a prominent lawyer of San Francisco, now practicing here; his partner, Mr. Soto, the president of the county board of education; Mr. A. E. Ball, the popular and worthy mayor of the city; and Dr. Crawford, pastor of the Methodist Church there.

The sessions of the institute, as will be seen from our local columns, were characterized by an interest which reflects the highest credit on the Monterey

teachers and their superintendent. The attendance was regular; one subject of the course of study after another was taken up, methods of teaching explained, and an occasional class-exercise held.

The editor was pleased to meet in this county, among many good teachers, some of especial merit. Hamilton Wallace, superintendent of the Salinas City schools and principal of the high school, deserves particular mention as an acquisition to the teaching force of this Coast. Of broad and thorough scholarship, and a fine disciplinarian, he is bringing the Salinas schools to a high standard of efficiency.

Superintendent Shearer has done excellent work in managing the schools of this county. Under his administration, the number of school districts has increased, a good set of teachers has been retained in the county, and their labor recognized and appreciated.

We left Monterey, impressed with the beauty of its mountains and meadows, and equally well pleased with the condition of its schools.

Then the editor journeyed north, to spend a week in Shasta County with the Normal Institute at Redding.

To Prof. H. R. Wiley, principal of the Redding school, belongs the credit of holding the first normal institute in California. To accommodate a number of young teachers who wished to improve themselves in methods, as well as to prepare a larger number for examination and teaching, Mr. Wiley conceived the idea of holding a twelve-weeks session of a normal class in Redding.

Fortunate in having a board of trustees composed of intelligent, public-spirited citizens, the task was made comparatively easy; and the experiment was sufficiently successful to justify its repetition.

In traveling through northern California, we noticed an exceptionally large number of good school-houses. The conclusion forced itself on us that, as a rule, the mining communities have been more liberal in expenditures for school purposes than strictly agricultural districts. Redding, a town scarcely eight years old, possesses one of the finest brick school-houses in the State. An enterprising people, led by such enterprising and intelligent men as Judge C. C. Bush, Dr. J. H. Miller, and W. A. Smith, after getting permission from the Legislature, taxed themselves to put up a \$10,000 brick school-house, and then erected it for \$1,700 less than the estimates: a permanent monument of wisdom in the present, and of bounty for coming generations. The community and northern California are under special obligations to Judge C. C. Bush, who, with his partner, Mr. Johnson, has always led in every movement calculated to improve the moral and intellectual condition of his section of the State.

The week spent by the writer at Redding was pleasant, and the exercises of the institute were apparently interesting and profitable to the students in attendance.

Among the visitors, we were much pleased to meet Mrs. D. M. Coleman, who for three terms, or seven years, has been county superintendent and principal of the Shasta town schools.

We have met some of Mrs. Coleman's old pupils in different sections of the State—some like Miss Jean Parker, principal of the Broadway Grammar School, San Francisco—occupying prominent positions. In the Redding Institute we met some of her pupils fresh from school, and discovered, so we believe, the reason of her frequent re-election to the superintendency. In every sense of the word, we found Mrs. Coleman a true teacher; in administrative ability, we found from the condition of the Shasta schools that there is no man occupying the

superintendency in any county in the State who has more thorough control of the schools than she. All of this her community evidently believes, and we can here conscientiously and gladly indorse.

Our labors at Redding concluded, a stage ride of over one hundred and twenty miles awaited us between that place and Yreka. A wild, mountainous country, the road winding along the banks of the Sacramento (here a deep, swift, crystal stream); then the still more beautiful Pitt River; then the McCloud; and again crossing great ridges of mountains, on through apparently interminable forests, with no habitation in sight, no sound of man for half a day—all this is Northern California. A romantic region, a paradise for the hunter and fisher, a veritable "promised land" for the geologist and botanist, too, is this still almost trackless land. And towering above all, for miles and miles of the journey, a constant refreshment to the traveler's weary soul, is the snow-capped peak of Shasta, which seems solitary among the neighboring peaks by reason of its far superior altitude.

Right at the base of the mountain is the home (it would be desecration to call it hotel) of William Sisson. Here we enjoyed twenty-four hours of as sweet rest as ever fell to the lot of weary man.

At Yreka the greeting which awaited us seemed like a welcome home. Many of the same faces met three years ago, the same bluff, honest grip from superintendent Harry Morse, showed that pleasant recollections of a former visit still lingered. A community containing a large element of intelligent and cultured people, with more talent and cultivation, especially in art and music, than any other town of even five times its size on the Coast, Yreka is the intellectual capital of the extreme northern part of California. Here live ex-Governor Irwin and his family, Calvin Edgerton, Judge Steele, the Wadsworths, John Daggett, Raynes, and Cleland, and others too numerous to name. These people are all actively interested in education, and ready at any time to aid in its advancement.

The best and only thing that need be said of the four days' institute is, that it was characterized by the same enthusiasm which marks every gathering of these teachers. Many of the old teachers are still here in harness. We were pleased to see Rice and Peterson and Mrs. McKay still active, efficient, and popular. Miss Wheaton and Miss Peck still occupy their old positions in the Yreka school—two of the leading teachers in California. These ladies are highly appreciated in Yreka, where they have lived and labored for seven years.

We were much pleased to meet, for the first time, at this institute John Kennedy of Etna, a leading teacher of Siskiyou County, and one who would take a first place anywhere on this Coast. Mr. Kennedy, though always a teacher, has been a member of the Legislature, was for many years principal of the Etna school, and is a member of the county board of education.

Among the teachers who have more recently entered on the work in this county are A. G. W. Davis, principal of the Yreka school, a faithful and efficient teacher; and Mrs. Redding and Mrs. Denny, two ladies of superior culture and adaptability for the profession.

We must not forget here to name ex-superintendent William Duenkal, who conducts a successful private school at Yreka, and who is as enthusiastic a naturalist as ever. His specialty is beetles, but correspondents will find him at home in almost any department of natural science.

Superintendent H. A. Morse, too, must be named as a faithful and highly efficient officer. While in Siskiyou we constantly heard his administration commended, and himself named for promotion to the office of county clerk, one of

the best positions in the county. We hope to see the time when no position will be considered a promotion from the county superintendency; but as it is, we trust superintendent Morse will be successful in his aspirations; no man certainly deserves it better than he.

Our labors at Yreka concluded, we again took the stage, and on our return passed over the Scott mountains, through the beautiful Scott valley, and over the Trinity mountains to Redding. Here, again in the land of railway coaches and rapid traveling, we were back from the realm of yesterday, and in the matter-of-fact experiences of modern every-day life.

GRADUATES FROM COUNTRY GRAMMAR SCHOOLS.

BY reference to the educational news of the past month on this coast, there is food for encouragement in the reviving interest seen in different parts of the State in the country schools. Until this year, except in the cities and large towns, it has been a rare exception to find the fiscal year close with anything more than the venerable "exhibition" in our public schools. But the country teachers (especially those who have enough stability to remain with a school until they become identified with its interests), overcoming the difficulties of lack of system and organization to which the city members of the profession are comparative strangers, are awakening to the fact that with the present generous provisions made by the State department, and seconded by most county boards of education, there is no need for them to occupy a back seat in matters educationally progressive.

Indeed, with the latitude which is generally allowed them for the exercise of individuality and originality, they ought to and in many cases are occupying the positions of advance guard in such movements. With a pupil in the city, graduating from the grammar school does not constitute such an epoch in life as with the country pupil. In the one case, it is usually merely a pause at the head of the first flight of stairs, where he takes breath to commence the onward ascent in the high school. In the other case, it is too often necessarily the end of his school life, and should be, and generally is, more complete. So while the city pupil takes his grammar school diploma somewhat as a certificate of promotion or passport to the high school, the country pupil will generally look upon his as *summum bonum*.

Recognizing this fact, county boards have generally made the course of study extended enough to retain the pupils until they are to that extent prepared to leave. So, in addition to the commoner branches, a fair knowledge of physiology, natural philosophy, algebra, industrial drawing, etc., is demanded. This is well and good, and with each coming year we hope to note an increase in those country schools which have an advanced grammar grade taking up thoroughly the practical high school studies.

In addition to the direct benefits reaped by this course, which must be evident to the most casual observer, there are indirect benefits resulting to the whole school. One of these is that of better attendance. If a pupil can have his ambition excited to work for an aim, to press on to a goal of effort, his work and deportment and attendance will invariably be better. It is a time-honored and often correct theory that the country produces the successful men and women;

that their alternate theoretical school work and out-door practice produces scholars with a symmetrical education that throws in the shade the packed brain of the city child. This is not only possible, but probable, under favorable circumstances; but be sure to include those favorable circumstances. The additional incentive given by diplomas helps in a great measure to do away, in the advanced classes, with that bane of country-school life—irregular and incomplete attendance.

CARE IN THE PURCHASE OF SCHOOL LIBRARY BOOKS.

MANY of our school districts have not yet expended the allowance for the library fund of the past year. To those having this in charge, allow us to give a word of advice. Be sure you know what you are purchasing. Many a district annually buys in haste, and repents at leisure. Books find their way into the school library, when neither their binding, typography, or contents entitle them to that place. As to their contents, care should be taken that nothing in any of them should exert in the slightest degree a sectional or sectarian influence. The field is broad enough to avoid all this in selection. If any such books have found their place there, and have excited any feeling whatever, better have them removed immediately from the library than to exist as a bone of contention.

SUNSHINE AND SHADOW.

THE mutations which mark this earthly life were exemplified a few weeks ago in the family of our worthy and popular State Superintendent, the Hon. F. M. Campbell.

On June 2nd, the day which marked the twenty-fifth anniversary of as many years of happy wedded life as ever fall to the lot of mortal man, Mr. and Mrs. Campbell were invited out riding by some Sacramento friends. In their absence, their neighbors and friends took possession of their home, proceeded to bedeck it with flowers, and cover the tables with a beautiful and varied display of silver.

Their home all illuminated, a hundred warm and loving friends, music, and hearty congratulation welcomed them on their return.

So quietly had all preparations been made that the affair was really a complete surprise. The Campbells imagined that, surrounded by their interesting family, recalling the incidents of a married life, eventful, but uniformly marked by the most complete affection and concord, they would adequately celebrate a quarter of a century of happiness. The thoughtful sympathy and esteem of their Sacramento friends in assisting them to commemorate the day must have been peculiarly touching.

A few weeks later, another and sadder occasion called together some of these same friends, with many from Oakland and San Francisco. There they met to pay the last tribute of respect to Mr. Campbell's father, who, full of years and peace, had lain him down to his eternal rest. At the age of eighty-one, surrounded by his son and grandchildren, he passed painlessly away. A busy and successful life in his youth and prime, his later years were passed in comfort and peace among those he best loved.

While Superintendent Campbell and his family have the heartfelt sympathy of their many friends, they all must feel that, as this mortal life must one day or other end, such an ending, fully ripe, were a fitting prelude to the happiness of the hereafter.

"THE EDUCATORS OF THE PACIFIC SLOPE."

IN our June number, without preliminary announcement, we published the first of a series of biographical sketches of the prominent educators of California, with a page portrait of the subject of the sketch.

As was eminently fitting, the series began with a description of the work of John Swett.

The article, by Mr. H. P. Carlton, who has in many ways been intimately connected with Mr. Swett and his work for thirty years, besides being the most complete sketch yet published of his life, has the additional merit of being an excellent literary production. With Mr. Carlton, it was eminently a labor of love. The portrait, a striking likeness, is as fine a piece of engraving as our facilities on this Coast can afford.

The next article of the series will be on Prof. Charles H. Allen, principal of the State Normal School. It will appear in our August number.

CAUSE OF DETENTION IN JULY JOURNAL.

THE JOURNAL is very late this month, not being in the mails until the 20th, on account of our waiting to receive the new lists of district clerks for the year 1882-1883. Thus far less than one-half the counties of the State have reported, so we are compelled to mail again to the old addresses. Consequently, many persons not entitled thereto may receive this July JOURNAL. We ask all such, kindly to deliver this number to the new clerk.

In this connection, superintendents are earnestly requested to forward to us at their earliest convenience the lists of clerks for the current year.

On account of the detention in the July number, the August issue will appear on the 10th of that month. Thereafter the JOURNAL will appear as usual, on the 1st.

MR. DRAKE'S ARTICLES IN THE JOURNAL.

IT is hardly necessary to commend the articles by C. M. Drake, published in the form of a serial in this journal. We wish here simply to note that, in the form of a story of considerable interest, presented in a bright and telling way, we have in Mr. Drake's chapters, one of the most valuable treatises on the science of education and art of teaching ever presented through the pages of an educational journal. Teachers have here at their command a complete manual for teaching, which may be used every day in practical school-room work.

FOR STATE SUPERINTENDENT.

THE nominee of the Democratic party of California for State Superintendent of Public Instruction is W. T. Welcker, formerly professor of mathematics at Berkeley. This is Prof. Welcker's first appearance in connection with the public schools of the State.

OFFICIAL DEPARTMENT.

SUPERINTENDENT FREDERICK M. CAMPBELL, EDITOR.

At a meeting of the State Board of Education, held July 13th, 1882, diplomas were issued as follows:

EDUCATIONAL DIPLOMAS.

Geo. Wm. Frick, Alameda Co.	Wm. Geo. Thompson, San Mateo Co.
Lizzie Story, Amador Co.	John S. Curryer, Santa Barbara Co.
Robert C. J. Adney, El Dorado Co.	James Stringfield, "
Mrs. Jennie V. Clyborne, Humboldt Co.	Kate Cozzens, Santa Clara Co.
Erastus B. Greenough, "	Eunice I. Snedaker, "
Ida E. King, "	J. M. Emmert, Sierra Co.
Thos. B. McCarthy, Mariposa Co.	Wm. F. Trainor, Solano Co.
John R. Hammond, Modoc Co.	Alice M. Wells, "
Joseph R. Hammond, "	Alice D. Chapman, Sonoma Co.
Julia F. Bugbey, Monterey Co.	Mary E. Chetwood, "
Norton L. Beard, "	Sarah E. Morton, "
Manassas J. Smeltzer, "	Geo. H. Kimball, Sutter Co.
Maggie Henderson, Nevada Co.	John H. Simon, "
Zelos F. McGee, "	Mrs. L. Jennie Murray, Stanislaus Co.
John Thomas Parr, "	Frank A. Cromwell, Tehama Co.
Benj. F. Stewart, "	Bell Duncan, "
Elizabeth B. Myrick, Oakland.	Mary A. Fleming, "
Andrew J. Freese, Plumas Co.	Albert A. Foster, "
Clara McKinstry, Sacramento Co.	Anna Rambo, "
J. H. Firehammer, "	E. A. Roice, "
Albert E. Liembach, "	Cora V. Smith, "
John H. Whitmore, "	G. H. Stout, "
Mrs. Mary Nagle, "	Albert N. Thompson, "
J. Scott Ryder, "	Peter Y. Baker, Tulare Co.
Nellie Livingstone, San Bernardino Co.	James M. Brooks, "
Michael J. Reilly, "	Adoniram J. Dye, "
Alice M. D'Arcy, San Francisco Co.	Sam'l L. N. Ellis, "
Kate M. Hickey, "	Emma J. Gillian, "
Mrs. Mary A. Hoogs, "	Montgomery L. Short, Tulare Co.
Mrs. Emily S. Loud, "	Geo. P. Morgan, Tuolumne Co.
Mary E. Morrison, "	Mary Etta Kies, Yolo Co.
Elizabeth Overend, "	Ida Kise, "
Kate Shepheard, "	Nettie Johnson, "
Roberta A. Thompson, "	Ida Atchison, Yuba Co.
Elbertas L. Moore, San Joaquin Co.	Eva S. Burt, "
Edwin S. Pinney, "	Edward Finnegan, "
Fannie Cullen, San Mateo Co.	Mary E. Ketchem, "
Henry Clay Hall, "	Sadie A. Lubers, "

Duplicate Educational Diplomas were granted to Ada Locke and Bell Fagg.

LIFE DIPLOMAS.

Mary E. Mathews, Alameda Co.	Justin M. Copeland, San Bernardino Co.
Mrs. Hanna Scott Turner, "	Laura M. Barrows, San Francisco City.
Amanda M. Youngman, "	Alice M. D'Arcy, "
Elvira H. Holloway, Calaveras Co.	Julia A. Doran, "
Sydney F. Hadsell, Fresno Co.	Clara B. Earle, "
Richard L. Davis, Lassen Co.	Mrs. Sarah N. Joseph, "
May C. Stackpole, Los Angeles Co.	Mrs. Mary J. Martin, "
Philip Achey, Mendocino Co.	Elizabeth Overend, "
Francis Marion Crossley, "	Belinda Roper, "
Mrs. Lelia S. Poage, "	Elizabeth White, "
John A. Poage, "	Alfred Farley Hills, San Mateo Co.
Abner L. Rafferty, "	Alcea E. Edwards, Santa Barbara Co.
Wm. Herrod, Nevada Co.	Ella Harrison, "
Martha A. Patton, Oakland City.	Phebe R. Owen, "
Henrietta C. Simpson, "	Lucy Shepard, "
Charlotte W. Tarbox, "	Henrietta Stone, "
Etta Louise Thompson, "	Emma W. Angell, Santa Clara Co.
Gideon D. Hines, Plumas Co.	Basha England, Sonoma Co.
Vernon Arrasmith, Sacramento Co.	Agnes G. W. Conlan, "
May L. Biggs, "	Robert A. Morton, "
India H. Hoyt, "	Hannah E. Stone, "
J. H. Firehammer, "	Hallie L. Bradshaw, Sutter Co.
Edward P. Howe, "	Maggie A. Fahey, Tuolumne Co.
Kate Wilbur, "	Wm. J. Sargent, Tulare Co.
Mrs. Bell S. Cooper, Sacramento City.	Harrison Crumrine, Ventura Co.

SCIENCE RECORD.

THIS RECORD is under the editorial charge of Prof. J. B. MCCHESENEY, to whom all communications in reference thereto must be addressed.

ACCORDING to *The London Journal of Mental Science*, people who take small overdoses of alcohol daily, insufficient to produce intoxication, are much more liable to serious deceased conditions than those who from time to time indulge in great excesses.

IF YOU have an idea that the water you drink is unhealthy from the germs of disease it contains, boil it. That process will destroy all trace of insectorial life. The filter will not do it. Boiled water well cooled is the safest and best drink in the world.

WE MUST not be surprised to hear of a paper furniture factory starting into existence before long. Paper can now be made of strong fibers and compressed into a substance so hard that only a diamond can scratch it. A foreign journal says that wood will be superseded by paper.

LIEUTENANT SHORE, in a lecture on China and Japan, says that until the arrival of foreign surgeons there was not a native in the whole Chinese Empire who could remove a

tumor, treat an abscess, or even set a fractured limb with certainty, and even now there are no surgeons in the army and navy.

A JERSEY CITY man has patented two improved floor coverings. One is a fabric coated with a mixture of ground leather and mineral fiber, and a binding of hard varnish; and the other is a coating of ground wood or some other vegetable fiber mixed with mineral fiber, and a binding of copal. These coverings are claimed to be remarkably cheap and durable.

BOOKS of soap are the latest invention in the line of toilet articles. The books are made up of thin tablets of fine soap, and the method of using is to float a tablet, or leaf, upon the water a few seconds, when it can be taken up on the hand to be converted into lather in the ordinary way. The idea originated in Austria.

DR. DECLAT of Paris has pushed the theories of Pasteur and Koch to the extent of claiming that all diseases result from the presence of parasites in the tissues or blood of a patient. To cure all diseases it is only necessary to find something that will kill these parasites. After much experiment, Dr. Declat has ascertained to his own satisfaction that what he calls chemically pure carbolic acid or phenic acid is the universal nostrum.

SOME new and valuable kinds of cinchona have recently been brought to notice in India. One of these is the Calisaya verde, which is a very large tree wholly devoid of any red color on the leaves, and habitually growing far down the valleys, and even on the plains. Each tree of this kind is said to furnish from 600 to 700 pounds annually, which, if it be the case, would make it the most profitable one to cultivate. The great feature of the Calisaya verde, however, is that it grows at a lower elevation than most other cinchona trees. The seeds of this plant are now on sale in London.

SOME additional experiments have been made in London to test the value of the new method of preserving carcasses by the injection of boracic acid. At a dinner where mutton had been preserved in this way for forty days, boiled and roasted joints were served. The meat retained its natural juiciness and flavor, and was free from any taint or taste of the antiseptic chemical which had been used. Five or six ounces of the boracic acid seem sufficient to preserve the carcass of a sheep of eighty or ninety pounds. The antiseptic is used by injecting it into a vein while the animal, though stunned by a blow on the head, is still alive, and the action of the heart is relied upon to pump it through every part of the body into which the arterial system ramifies.

A MOST IMPORTANT MEDICAL ANNOUNCEMENT.—According to a cable dispatch to the New York *World*, Dr. Koch of Berlin has ascertained, experimentally, the exact nature of the parasite that causes tubercular consumption. He has succeeded in reproducing the parasite by artificial propagation, and it is to be hoped that he may be able, after the manner of M. Pasteur, to produce a modified form, from which by inoculation persons may be protected against attacks of the disease. Dr. Koch found swarms of the parasites in matter thrown from the lungs of consumptive patients. Public announcement of the fact, as above stated, was made by Professor John Tyndall to the London *Times* in a luminous exposition of Koch's remarkable investigations of tubercular disease.

CLOSING OF OUR SCHOOLS AND COLLEGES.

AN unusually prosperous year has just been completed by the schools and colleges of the coast. Following is a brief *resume* of the final exercises of some of the most prominent among our educational institutions, both public and private:

THE STATE UNIVERSITY.

The commencement exercises of the University of California were held Wednesday morning, May 31st, in Harmon Gymnasium, Berkeley, which was well filled with a bri-

liant and appreciative audience. The graduating class—thirty-three in number—is the largest that the university has seen for some years. Their names, residences, and respective university courses are as follows:

Literary.—Wm. D. Armes, Oakland ; Albert M. Armstrong, San Francisco ; John S. Bishop, Honolulu, H. I. ; Orlon Black, San Francisco ; Diademus S. Dorn, Watsonville ; Annie C. Edwards, San Francisco ; Charles A. Edwards, Santa Barbara ; Selim M. Franklin, San Bernardino ; Charles H. Oatman, Sacramento ; George F. Schoor, Gridley.

Classical.—Frederick H. Clark, Berkeley ; John J. Dwyer, San Francisco ; Harry M. Edmonds, San Francisco ; Catherine H. Hittell, San Francisco ; Jerome B. Lincoln, San Francisco ; Caroline J. Swyney, Alameda.

Chemistry.—James Akerly, Oakland ; John W. Atkinson, Oakland ; Eva Stoddart, Alameda.

Engineering.—David Barcroft, Horintos ; Bernard Bienenfield, San Francisco ; William W. Brier, Centerville ; Samuel Levy, San Francisco.

Mining.—Charles E. Hayes, Oakland ; Robert D. Jackson, East Oakland ; Howard L. Weed, Grass Valley.

Mechanics.—William W. Gill, Oakland ; Robert G. Hooker, San Francisco ; Addison P. Miles, San Francisco.

Agriculture.—Rufus A. Berry, Wheatland ; Philip E. Bowles, San Francisco ; Oscar W. Jasper, Wheatland ; Cutler Paige, Berkeley.

The following was the programme of the exercises : Music by Ballenberg's band ; invocation ; music ; oration, "Evolution and Religion," Bernard Bienenfield ; oration, "An Ideal for America," John J. Dwyer ; music ; oration, "Silent Influences," Charles H. Oatman ; music ; address, "Perspective Education," Rev. C. D. Barrows ; music ; delivery of military commissions, by Governor George C. Perkins ; music ; conferring of degrees, by the President, William T. Reid.

UNIVERSITY OF THE PACIFIC.

The commencement exercises of the University of the Pacific were held Thursday, June 1st, at the University Chapel, between San Jose and Santa Clara. The graduates numbered eight, including one graduate in music. Their names all appear in the following programme of exercises : Music by the band ; prayer ; "Beethoven's Moonlight Sonata," Emily L. Peeler ; essay, "Our California Home," Mary A. Hemlen ; oration, "The Search for Truth," Herbert E. Cox ; oration, "He who does not Advance, Retrogrades," Edward L. Lippitt ; music ; oration, "Ideals and Effort," Edward P. Dennett ; oration, "The Prince of Pulpit Orators," Lorenzo Fellers ; oration, "Genius and Labor," Robert E. P. Gober ; music ; essay, "The Star of Enlightenment," Susie B. Gober ; master's oration, "Young Men and their Country," Prof. John Flournoy ; music ; address and presentation of diplomas, Dr. C. C. Stratton ; music, "Home Sweet Home" (Thalberg), Emily L. Peeler ; benediction. The University of the Pacific, under the excellent management of Dr. Stratton, has come to be regarded among the first colleges of the State.

STATE NORMAL SCHOOL.

The commencement exercises of the State Normal School were held on the same day as those of the University of the Pacific. Normal Hall was filled to its full seating capacity—about one thousand—and handsomely decorated. The class of '82 was the largest that has ever graduated from the Normal, numbering seventy-four ; and the interest was correspondingly great. The programme was so lengthy that it was separated into two divisions, one for morning and the other for afternoon delivery. The following was the programme :

Part I. Anthem by the school, "O, Give Thanks" ; prayer, Prof. J. H. Braly ; salutatory, Elizabeth Leggett (owing to bereavement in Miss Leggett's family, she was not present, and Professor Allen welcomed the audience in her place) ; essay, "Wise Old

Sayings," Lillie S. Schoen; chorus by the class, "Fair Shines the Moon To-night"; essay, "Only a Cup of Cold Water," Inanda L. Dranga; essay, "Latent Power," Mary H. Rickey; chorus, "Sweet and Low"; poem, "In Memoriam" (a tribute to deceased class members), Minnie B. Rixon; oration, "Progress of America in the Nineteenth Century," William H. Sears; glee by school, "All Among the Barley."

Part II. Anthem, "I will Praise Thy Name"; essay, "The Modern Invasion," Mary E. Meek; essay, "Not all of Stone," S. Lizzie Miller; "Song of the Triton," by the school; oration, "Socialism," Leolin Taylor; essay, "For the Work's Sake," Kate C. O'Brien; valedictory, Lavinia Hillebrant; double chorus by school and class, "From His Home on the Mountain"; address to the class, Governor George C. Perkins; presentation of diplomas, Prof. C. H. Allen. A pleasant feature of the class exercises which followed, was the presentation to Prof. Allen of an elegant arm-chair. Miss Ella Starling, in behalf of the class, made the presentation speech, to which Prof. Allen briefly and feelingly responded.

At the meeting of the Board of Trustees in the evening, Prof. Allen was re-elected principal of the Normal School at San Jose, and also principal of the branch school at Los Angeles, without extra salary, and was directed to proceed to Los Angeles as early as possible and arrange for the opening of the school. The building is to be completed for occupancy before August 1st. Professor C. J. Flatt was elected vice-principal of the branch school; Miss Emma L. Hawks, preceptress; Professor J. W. Redway, general assistant. The board re-elected the present Faculty of the Normal School at San Jose, with the exception of Miss Murray, Miss Lucy M. Washburn being elected in her place. It was resolved that two classes be graduated annually hereafter: one in December, and one in June.

NAPA COLLEGIATE INSTITUTE.

The commencement exercises of the Napa Collegiate Institute were held in the M. E. Church, May 25th. The floral decorations were very handsome, and the church was well filled. The following programme was rendered: Chorus, "Alpine Maid"; invocation, Rev. J. L. Trefren; oration, "Machinery in Production," L. M. Turton; essay, "The Nineteenth and Twentieth Centuries," Edith M. Joy; vocal duet, Misses Norton and Litsch; oration, "England and America—1776-1876," Arthur K. White; essay, "Dickens and Thackeray," Clara Sheldon; piano solo, Annie C. Turner; oration, "Land Tenure," E. E. Winfrey; essay, "Hands," Nellie M. Wetmore; vocal solo, Hattie Norton; essay, "God's Heroes," Jessie L. Dresser; double male quartet, "Yachting Chorus"; oration, "The True Glory of Nations," A. F. Ross; duo (two pianos), "I Puritani," Clara Sheldon and Annie Turner; essay, "Silent Forces," Ella Tallman; oration, "Moveo et Proficio" (the class motto), R. H. Piatt; piano quartet, Misses Turner, Litsch, Hall, and Prouty; address to the class and presentation of diplomas, Rev. A. J. Wells.

At the *alumni* reunion held the same afternoon, the pleasant news was announced that the institute was now entirely free from debt, owing to its successful management under the control of the principal, Prof. A. E. Lasher.

THE HIGH SCHOOLS OF THE STATE.

The graduating exercises of the San Francisco Boys' High School were held in the high-school building on Sutter street, Wednesday afternoon, May 24th. The programme was arranged by a committee chosen by the class, and was most satisfactory. There were nineteen graduates from the English department, and seventeen from the classical department. A chorus from the Girls' High School furnished the vocal music for the occasion. The literary part of the programme was opened by an oration on "Over-Education," by Frank M. Michael. Other papers read were an essay upon "Atlantis, the Lost Continent," by George M. Bigelow; "History of the English Senior Class," by Melville

Klauber; "History of the Classical Senior Class," by Gaston M. Ashe; "A Dream of a Century Hence," by J. M. Lipman. After another song by the young ladies, Superintendent Taylor, after a brief address, delivered to the members of the graduating class their diplomas. Addresses were also made by Rev. C. D. Barrows, School Directors Bacon and Dunn, ex-Superintendent Mann, and Prof. Minns, who was the first high school principal in San Francisco. At the close of the exercises the cadets gave an exhibition-drill in the school grounds.

The graduating exercises of the San Francisco Girls' High School were held at the Grand Opera House, Thursday evening, May 25th. The large auditorium was crowded to its utmost capacity, while the tastefully decorated stage was well filled by the one hundred and seventy graduates of this year. Dr. Henry M. Fiske of the board of education delivered the introductory address. John Swett, principal of the Girls' High School, presented the graduating class to the board of education. The programme was as follows: Song by the class; essay, "Our Senior Year," Nellie Thompson; song by the class; essay, "Houses," Maude Pearce; song, Margaret Thornton; essay, "I shall Live," Hattie Levy; song by the class; essay, "Proverbs," Victoria Roussell; poem, Bessie Curtis; song by the class; delivery of diplomas by J. C. Stubbs, president of the board of education; presentation of flowers.

The graduating exercises of the class of '82 of the Oakland High School took place Friday afternoon, May 26th. There were twenty-four graduates—seven young gentlemen and seventeen young ladies. The following was the programme: Part song, "Tell the Roses"; oration, "The Aristocracy of the Future," James Moffit; essay, "American Humor," Letitia Morris; essay, "The Treasures of the Hills," May W. Tyler; chorus by class, "Spring with Fairy Foot Returning"; essay, "The Representative Women of America," Gertrude Rice; French essay, Fannie E. Carleton; essay, "The Outlook for Women"; chorus, "God in the Tempest"; essay, "Light," Gertrude H. Carlton; essay, "The Graduating Essay," Ada F. Robins; essay, "The Education of Girls," Cora A. Dewitt; "Hunting Song," by the class; essay, "Truth," Fannie Miller; essay, "Life in a Country Village," Frances R. Sprague; essay, "Gathering the Fragments," Helen A. Robins; part song by class, "Parting and Meeting"; essay, "Unrealized Aspirations," Ina G. Griffin; trio, "Fast the Night is Falling"; address to the class and presentation of diplomas, Superintendent J. C. Gilson.

The commencement exercises of the High School of San Jose took place Friday evening, June 16th, at the California Theater. The class was composed of twelve young ladies. The programme of exercises was as follows: Anthem chant, class; salutatory, Georgie E. Dixon; essay, "True Gold," Laura B. Young; duet, Misses Dixon and McMillin; oration, "Eloquence," Minnie A. Miller; essay, "Music," Ida P. McMillin; chorus by class; valedictory, Rosa E. Denny; music; address to the class, J. G. Kennedy, principal; presentation of diplomas, Superintendent Oliver.

The Stockton High School graduating exercises were held Friday evening, June 30th, at Mozart Hall, before a crowded house. There were fourteen graduates—nine young ladies and five young men. The programme was as follows: Prayer; song by school, "Phantom Ships," salutatory, Hattie Keating; declamation, "Fitz James," Henry E. Adams; essay, "Power of Kindness," Katie Tully; piano solo, May Stowe; essay, "Life's Billows"; declamation, "Gustavus," Fred Yost; song, "A Bird from o'er the Sea," Mattie Lester; essay, "Respect Due the Aged," Mary Gall; declamation, "The Tempest," Edward E. Gross; song by school, "Columbia, the Gem of the Ocean"; essay, "Labor," Ella H. Learned; declamation, "Duty of Literary Men"; essay, "Golden Keys," Ella M. Learned; essay, "A Good Time Coming," May Stowe; essay, "Is it Worth While?" Morris F. Wenk; song, Lila Moore; piano solo, "L'Argentine," Ella M. Learned; essay, "Happiness," Anna Le Grys; song by the school; essay and valedictory, "Light Through the Crevices," Abbie L. Cadle; address and presentation of diplomas, Superintendent Crawford. Much credit is given the principal, A. H. Randall,

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his assistant, S. D. Waterman, for the meritorious way in which the exercises passed off.

The following account of the graduating exercises of the High School Grade of Pescadero Grammar School is compiled from the county press of San Mateo County. The Congregational Church of Pescadero was thronged with an enthusiastic and appreciative audience on the evening of the 16th inst., to witness the graduating exercises. The programme was as follows, and all the participants acquitted themselves creditably: Song by the school, "Concone's Evening Hymn"; prayer, Rev. J. F. Holmes; essay, "What the Future Holds," Carrie Mills; vocal duet, "Sweet Visions of Childhood," Lizzie Christman and Neva Adair; essay, "A plea for the Present," Mary Leighton; piano solo, "Les Voix du Matin," Alice Garretson; essay, "Rowing and Drifting," Lizzie Fairgrieve; vocal solo, "Waiting," Jessie Honsinger; essay, "The Power of Personal Influence," Mary Hayward; piano solo, "Autumn Leaves," Laura Weeks; essay, "Our Fleet that Sails To-night," Mattie Thompson; piano solo, "Tryoller Heimaths-Klange," Carrie Mills; address to the class, W. B. Turner, principal; vocal quartette, "Farewell," Laura Weeks, Emily Leighton, Angie Armas, Annie Shaw; benediction. The graduates, five in number, have thoroughly mastered the studies of the prescribed course, and their faithfulness has been crowned with well-deserved success. As each young lady finished reading her essay, she was honored with a shower of floral offerings. Superintendent G. P. Hartley then stepped forward and made a pleasing and congratulatory address. Mr. W. B. Turner next addressed the class in a feeling and appropriate speech. At the conclusion of Mr. Turner's address, one of the young ladies in behalf of the class presented him with a handsome toilet set, which he received with a few heartfelt words of thanks. By his enthusiasm, faithfulness, and untiring energy, Mr. Turner has won the good will of the entire community. All unite in conferring great credit upon all concerned for the successful manner in which the exercises passed off—the first graduating exercises, by the way, ever held by any of the public schools of San Mateo County. After dismissal, some friends of the graduating class tendered them a reception and party in Union Hall, where dancing was indulged in until the "wee sma' hours." The party was very largely attended. To show that the work accomplished by these graduates is not superficial, it only needs to be stated that the class appeared shortly afterward before the county board of education (the same body that awarded them their diplomas), and a majority of them were awarded first-grade teachers' certificates.

We should be pleased to present particulars of the closing exercises of the high schools of Sacramento, Marysville, and Los Angeles, but a careful examination of the files of daily papers from those cities up to the date of our going to press, fails to give any information on the subject, hence they will have to be content with this mere mention.

SUMMER INSTITUTES.

HUMBOLDT COUNTY.—The Teachers' Institute of Humboldt County convened in the high-school building at Eureka, Tuesday, June 13th, and continued in session four days, J. B. Casterlin, county superintendent, presiding, and J. N. Davies being elected secretary. Sixty-six teachers were in attendance the first day. The institute was opened with prayer, and after the usual appointments were made, James Smith read an essay on "The Desirability of More Extensive Literary Culture and Language in Our Common Schools." Prof. H. B. Norton of the State Normal School was introduced, and addressed the institute at length upon the pernicious effects of light, trashy, and sensational literature upon the youth of the land. J. B. Brown considered the subject of book-keeping. A discussion of this subject ensued, and was participated in by a number.

Prof. Norton opened the afternoon session of the first day by an illustrated lecture upon Venice, its history and architecture. James Jesse briefly explained his method of teaching history. Prof. Norton, in comment, thought one of the chief requisites of a successful teacher was to learn what not to teach, and that school libraries should abound in historical works written in a manner pleasing to children.

J. M. Dickson explained on the blackboard his method of teaching primary arithmetic. This subject was discussed at length by a number, the tenor of the methods being that pupils should not be taught the reasons of the operations until practice in the operative part is finished. Some considered the Grube method a failure.

Wednesday morning's proceedings opened with music, and then Walter Clark described his method of explaining the changes of the seasons. The merits and demerits of tellurions, orreries, etc., were discussed, and the general impression seemed to be that the advantage gained by such instruments was not commensurate with the cost.

After a discussion of orthography, introduced by A. H. Day, Miss P. H. Parker read a paper upon "School Decoration," and was followed in the same train of thought by Prof. Norton, who explained how to use and manufacture the window lantern.

Wednesday afternoon the subject of geography was introduced by Mr. Stowell, who was followed by J. B. Brown. Prof. Norton also remarked upon the importance of map-drawing as an auxiliary to the study of geography, and of making good reading selections for this study; recommending the works of Captain Mayne Reid and similar ones for school libraries.

J. W. Ellis explained his method of teaching primary reading, which elicited an interesting discussion, which was resumed the following morning by W. F. Clyborne. Some argued that teaching primary pupils to print letters is time wasted, while others dissented.

George Underwood read a paper entitled "One More Error in the School-room," which, on motion, was ordered published. J. B. Brown then introduced the subject of natural history, Prof. Norton following at length, explaining the utility of the study, and recommending for the library such works as Packard's Natural History and Packard's Insects. A pleasing recitation by Miss E. McMeekan closed the exercises of that morning's session.

S. C. Boom opened the subject of arithmetic for advanced classes, eliciting considerable discussion, in which some puzzling problems in the arithmetics now in use were critically discussed.

The subject of morals and manners was introduced by N. S. Phelps, and was discussed by a number, including State Superintendent Campbell, who arrived and was introduced during the progress of the discussion.

Friday morning's exercises opened with a discussion on school discipline, which was participated in by a number. This was followed by a paper by Miss Howe, entitled "What Teachers Should Read." By request of the institute, the essay is to be published in the *SCHOOL JOURNAL*.

Superintendent Campbell delivered a lecture on "What Should Constitute a Course of Elementary Education in Our Common Schools."

The afternoon session opened with music, and this was followed by Rev. Mr. Huntington in an instructive and entertaining address upon the subject of "What Books We Read and Should Read." Prof. Norton and Superintendent Campbell followed in appropriate remarks. J. M. Dickson and others gave their ideas as to the manufacture and care of blackboards.

The closing exercises of the institute were held at the Congregational Church in the evening, when Prof. Norton delivered a lecture entitled "Three Years in a Wigwam," carrying him back to memorable experiences in the Pawnee and Apache Indian country. Resolutions were then adopted, extending the thanks of the teachers of the county to Superintendent J. B. Casterlin for his uniform courtesy and kindness during his adminis-

tration, and regretting his signified intention of withdrawing from the office at the close of his present term.

Superintendent Campbell then spoke, thanking those who had made his stay so pleasant in Humboldt, and concluded by presenting in behalf of the teachers an elegant silver service set to Superintendent Casterlin. Prof. Casterlin briefly and feelingly responded to this pleasant surprise, the doxology was sung, Prof. Norton pronounced the benediction, and the Humboldt County Teachers' Institute adjourned.

SISKIYOU COUNTY.—The Siskiyou County Teachers' Institute assembled at Yreka, Tuesday, June 6th, and was called to order by Superintendent Morse. After the usual preliminary work, Prof. Albert Lyser of the SCHOOL JOURNAL was introduced; and after a prelude of a general character concerning the objects and aims of the institute, took up the subject of mental arithmetic, dwelling chiefly on practicality.

The afternoon session opened with music, after which was an address of welcome by Prof. Kennedy. Prof. Lyser then took up the subject of "A Better Attendance, and How to Secure it," after which the institute adjourned for the day with music.

Mr. Peterson opened the next day's literary exercises with an excellent paper on the subject of "Reading," which formed the basis of an interesting discussion participated in by several, and closing with a practical exemplification of class-work with a class of girls from the public school.

The afternoon session was opened with a consideration of the subject of "History" by Prof. Lyser, showing various interesting methods of making that study pleasant. He afterward took up the subject of "Drawing," and treated it at some length. A spelling-match then ensued, participated in by all present.

Thursday morning opened with a dissertation on the surroundings of the school-room, and morals and manners, by Prof. Lyser, followed by a discussion on physiology. Votes were taken on the following questions, with the results named: "How many think that physiology is as important as reading?"—twenty-four affirmatives and no negative. "Who think it could and should be taught to primary scholars?"—eighteen affirmatives and no negative.

Montgomery's revolving chart was then exhibited, and elicited admiration for its creation of new methods in primary reading and arithmetic. Mr. Duenkel then gave some exercises in rapid multiplication, and the application of fractions to the solution of problems in percentage. After a talk on teaching geography by Prof. Lyser, a committee of five were appointed to make arrangements for the formation of a county cabinet of minerals and plants.

The exercises of the fourth and last day of the institute were then brought to a close by a lecture by Prof. Lyser on "Scientific Progress in the Nineteenth Century," after which the usual resolutions were adopted, and the institute adjourned.

MONTEREY COUNTY.—The Monterey County Teachers' Institute met in the M. E. Church, Salinas City, May 23rd, and continued in session three days, fifty-five teachers being in attendance. Superintendent S. M. Shearer presided, and P. E. Colbert acted as secretary. After the usual preliminaries, and some short select readings and essays by various members, Prof. Lyser spoke upon "Primary Teaching," giving practical examples of his methods; after which several teachers gave their views on the same subject.

The afternoon session opened with music by the choir, after which Superintendent Shearer made his annual address, which was full of good counsel to the teachers and school officials, and also interesting as a *resume* of his year's work.

The subject of "Physical Education" was then opened in a masterly manner by Rev. Mr. Ballou. He was followed by others who gave their ideas, ranging from kindergarten calisthenics to the use of the sledge-hammer.

The subject of "English Literature and Advanced Reading" was then taken up by Prof. Wallace, who gave an interesting treatise on that subject, which elicited a discussion participated in by a number, and its tenor amounting to this: "In reading, be natural."

In the evening, Mr. E. Curtiss of the San Francisco *Call* lectured, taking for his subject "Books and their Authors."

Wednesday's work opened with an address upon "Theory and Practice of Teaching" by Prof. Lyser, which was followed by an interesting and somewhat satirical paper upon "Teachers and Teaching" by Mr. Laird. It was ordered published.

An original poem was then read by Miss Iva D. Hagar, entitled "Building of Character." This was followed by an exhibition of Montgomery's revolving chart. Prof. Lyser gave in a practical way his method of teaching reading, taking the teachers present as a class.

After a discussion on "School Government," opened by Prof. Wallace, the institute adjourned till evening, when it reconvened and listened to a very able and interesting address by Rev. C. C. Stratton of the University of the Pacific, on the subject of "Higher Education."

The last day's proceedings were opened by a talk on "Language" by Prof. Lyser, followed by a general discussion on that subject. The next subject taken up was "Botany," by Mr. Hickman, who illustrated his method of teaching it to little children.

Prof. Lyser followed upon "History," recommending that it be taught by topics, and also that such works as "Swinton's Condensed History" be discarded; in the approval of which sentiment the teachers expressed themselves by hearty applause.

After recess the subject of "Moral Training" was taken up, after which twenty-five test words were given but to be spelled; five of the teachers spelling all correctly.

After the adoption of the usual resolutions, the institute adjourned until evening, when it met to listen to an address by Prof. Lyser on "Progress of Science," for which a unanimous vote of thanks was tendered, and the institute adjourned *sine die*.

SAN LUIS OBISPO COUNTY.—The County Institute of San Luis Obispo County met in the Garden Street M. E. Church of the county seat, Tuesday, June 27th, and continued in session four days. Superintendent Beckett presided, and B. F. Whittemore acted as secretary. Forty-six members reported present the first day. The forenoon was occupied in preliminary organization, and Prof. Allen of the State Normal School opened the afternoon session with primary reading, followed by W. H. Findley explaining his method of teaching Spanish children to read English. Miss Mattie F. McKnight read a practical paper on "Constructive Language in Primary Schools." In the evening Prof. Allen delivered an address on "The Improvement of Our Schools."

Wednesday morning J. W. Stringfield discussed primary arithmetic, and Prof. Allen followed in the same train with advanced arithmetic. Mrs. Carmen of Arroyo Grande introduced and ably treated penmanship. After recess the subject of Written Arithmetic was resumed, and a discussion followed, numerously participated in. In the evening Prof. Allen at Lytton Theater lectured on "The Old and the New in Education." The entertainment was assisted by musical talent of the institute.

Thursday morning W. J. Evans introduced the subject of "Phonetics," evoking a discussion, and calling forth some practical class applications of it by Prof. Allen. F. E. Darke and Prof. Allen then explained the uses and misuses of the charts in teaching primary reading.

A class exercise in spelling opened the afternoon session, after which George P. Noe and Miss Annie Osborn treated "Oral Grammar." After music and recitations, J. A. Ford read a paper on the "C. L. S. C." The lecture of the evening by Prof. Allen on "How to Read and What," was interesting and profitable.

Friday morning Mrs. Goldsworthy read a paper on "Obstacles to Successful Teaching," after which Prof. Allen discussed geography. Allan McLean recited an original poem; and J. L. Raines elucidated history, calling forth a discussion largely participated in. After the report of the committee on resolutions, the institute adjourned until evening to listen to another of Prof. Allen's lectures, and then adjourned *sine die*.

EDUCATIONAL INTELLIGENCE.

KERN COUNTY.—The *Californian* makes a plea for a private school of a high grade at Bakersfield, which it says would be well patronized, especially during the summer, when the public schools are closed.

There are no less than six aspirants for the office of County Superintendent in Kern County.

MONO COUNTY.—At the recent examinations in Bridgeport, two first-grade certificates were awarded to ladies.

BUTTE COUNTY.—Superintendent Wood reports a large number of successful applicants for diplomas of graduation from the schools of his county. The County Board of Examiners itinerate to different parts of the county, and have held no less than seven different examinations.

The closing of the Chico public schools was marked by a dramatic and musical entertainment, including the familiar play "Among the Breakers." At the close of the last scene Mr. Batchelder, principal of the Chico schools was summoned upon the stage and presented with an elegant silver salver by Miss Carrie Fuller in behalf of the school, as a token of the esteem in which he is held there.

In the Oroville Grammar School, eighteen graduating diplomas were awarded—twelve to females and six to males.

County Superintendent Jesse Wood, of Butte County, received the warm indorsement of his county papers, as aspirant for the Democratic nomination for State Superintendent; but, as the public knows, that honor was awarded to Professor W. T. Welcker, formerly of the State University.

SAN BERNARDINO.—Before the County Board of Examiners, which met in San Bernardino June 20th, there were thirteen candidates, of whom two obtained first-grade and three second-grade certificates.

Miss W. H. Bennet, who for several years has been one of the most popular and successful teachers of the Colton public schools, has gone to San Francisco to accept a position as correspondent on the *Resources of California*.

COLUSA COUNTY.—The *Sun* criticises the new school building in Colusa, because it has no front door; intended for back-door graduates, perhaps.

Four young ladies were graduated from the Webster Grammar School, Colusa, and received their diplomas.

Out of fifty-one applicants for teachers' certificates at Colusa, nine received first-grade and twenty-four second-grade certificates.

CONTRA COSTA COUNTY.—There were twenty-eight pupils graduated from the grammar schools of Contra Costa County, June 17.

SOLANO COUNTY.—The following board of teachers have been elected as instructors in the Dixon public schools for the ensuing term: Principal, J. B. Crenshaw; First Assistant, Miss Emma V. Stuart; Second Assistant, Miss Carrie Apperson; Third Assistant, Mrs. George Martin.

SIERRA COUNTY.—At the recent examinations in Downieville, three first-grade and seven second-grade certificates were awarded.

The Forest City *Tribune* has a pleasant innovation in the shape of an educational column, under the editorial management of J. E. Berry. A good example for other country newspapers.

PLACER COUNTY.—An attempt is being made to establish an Academy, Normal School and Business College at Auburn, with fair prospects of success.

HUMBOLDT COUNTY.—Professor Volney Rattan, lecturer of Botany in the San Francisco Girls' High School, has been making floral researches in the hills of Humboldt and Trinity.

Rev. H. D. Lathrop and wife, of the Eureka Humboldt Seminary, have severed their connection therewith, and have gone to Walla Walla, W. T., to work in new fields of labor.

SISKIYOU COUNTY.—The County Board of Education granted four first-grade and two second-grade certificates at the recent examination.

MONTEREY COUNTY.—The Monterey County Board of Education have adopted a resolution, to the effect that no temporary certificates will be granted to teachers from other counties unless they are the holders of first-grade certificates.

Of the twenty-seven applicants before the Monterey Examining Board, not one obtained a first-grade certificate, and but seven others second-grades.

SANTA CLARA COUNTY.—Miss F. A. Dunham, preceptress, and Miss Mary E. Martin, teacher of Ancient Languages in the University of the Pacific, have been spending their vacation on an Eastern trip, visiting friends in New York and Illinois.

Professor John Flournoy, who for several years past has been teacher of Mathematics in the halls of his *alma mater*—the University of the Pacific—has left for Edinburgh, Scotland, to take a more extended course of study in European Universities. Previous to his departure he was presented with \$100 by his friends of the school. He is a young man of great promise, already a deep and brilliant orator, and will be heard from. He is succeeded in the University by Professor F. W. Blackmar, teacher of Mathematics for several terms in the San Jose High School. Mr. Blackmar was also recently appointed to a membership in the County Board of Examination. He is a graduate of the Pennsylvania Normal School, and also of the University of the Pacific, and his name is mentioned in connection with the County Superintendency in the coming fall election.

NEVADA COUNTY.—Professor Frank Power, for many years principal of the Grass Valley schools, has resigned his position to re-enter the practice of the law. Previous to retiring, Professor Power recently graduated a large class from the public schools.

A report of fraud in the examination of teachers in Nevada County created considerable comment. Several lady applicants were accused of systematically communicating with each other during examination. The matter has been taken under investigation, but no decision rendered yet.

TULARE COUNTY.—In the teachers' examination at Hanford, two first-grade certificates were awarded. Although several

more got the requisite percentage for first-grades, yet, according to the rules of the Tulare board, they cannot get them until they have had one year, successful experience in teaching.

SAN BENITO COUNTY.—The schools have generally closed for the summer vacation.

Professor Thompson, principal of the Gilroy schools, was presented by his graduating class with an elegant gold and ebony pen-holder and gold pen, as a token of their appreciation.

SANTA CRUZ COUNTY.—Miss Carrie Pardee, teacher of a primary department of the Watsonville school, has gone East for a few months.

The schools of this county are all closed for their summer vacation.

The seaside school is now in charge of Laura E. Pearson, a young lady highly spoken of by the educational journals as a promising teacher and interested worker.

Examination of applicants for teachers' certificates now in progress. A limited number present.

The Board of Education consists of W. H. Hobbs, J. W. Linscott, J. L. Halstead, H. E. Makinney and H. D. Trout.

NAPA COUNTY.—Principal Shearer graduated a class of twenty from the Napa grammar schools.

Rev. Lowell L. Rogers, who has successively occupied the position of principal in the following institutions: Napa Collegiate Institute, Calistoga Springs College, Ashland (Oregon) College and Normal School—has agreed to take the principalship of the St. Helena Academy.

ALAMEDA COUNTY.—A. W. Brodt has been discharged from the position of principal of the Durant School, owing to charges of cruelty and unprofessional conduct which have been hanging over him for a year past.

SAN FRANCISCO.—Deputy School Superintendent Stone has taken a five-months leave of absence, and betaken himself to the East and Europe, to rest, travel, and enjoy himself.

The school directors and supervisors have been wrestling with the knotty problem of how to spend \$850,000 on the schools of

this city, and still keep the rate of taxation at one dollar.

Miss Kate Kennedy, of the North Cosmopolitan School, informed the Board of Education, by written report, that the proceeds of the entertainment for the medal fund netted \$546.50.

At the last regular meeting of the Board of Education, the Ministerial Union sent in a resolution adopted by them, which urged the board to admit the children of Chinese residents to the public schools. President Stubbs stated that he knew of no action or rules of the board under which they were excluded. It was referred to the Committee on Classification.

Laura Pfeiffer, who was compromised in the Moore question-selling matter, and dismissed from the department in consequence, sent in a communication denying that she was implicated in the matter, and asking that she be reinstated. Referred to the Committee on Classification.

The Committee on Classification made the following recommendations: That applicants to the Normal Class hereafter shall be at least 17 years of age; that all applicants not graduates of the Girls' High School be examined as to their qualifications; that the Ocean House School be declared an ungraded school—which were adopted without debate.

SAN JOAQUIN COUNTY.—Dr. S. P. Crawford was elected city superintendent of schools at the recent city election in Stockton.

LAKE COUNTY.—There are about forty teachers in this county. Only five districts employ more than one teacher.

Lakeport proposes building a new six-thousand-dollar school-house.

The school property at Middletown has recently been improved by a special tax of over \$300.

James Faulkner, principal of the Middletown schools, is writing "School Topics" for the *Lower Lake Bulletin*.

The Lakeport schools are manned as follows: G. W. Wilson, principal; Mrs. Belle Townsend, intermediate department; Miss Crump, primary department.

C. A. Cooper, a ripe scholar, of forty years' experience, is principal at Kelseyville, and Miss M. E. Bradley, assistant.

At Lower Lake, W. H. Adamson is principal, and Ada A. Lyon ass'tant.

J. G. Layman is teaching at Guenoc. Mrs. A. Lowe, one of our oldest teachers, teaches in California District; Miss Covey, Eureka District; J. N. Griswood, late of Ontario, Morgan Valley; Miss M. A. Castero, late of Missouri, Spruce Grove; Miss Annie Whitmore, Burns Valley; James Maloch, late of New York, Sulphur Bank.

NEWS RECORD.

Foreign and Domestic.

Our record closes July 1st.

The remains of Thomas Jefferson are to be removed to Washington, and buried in Glenwood Cemetery.

England threatens to open hostilities against the Egyptian Minister of War, Arabi Bey, at Alexandria, in behalf of the Khedive, who is unable to enforce his policy. It is thought that the great powers of Europe will co-operate with England.

Engineer Melville discovered the dead bodies of Lieutenant De Long and party in a hut on the Lena River. Lieutenant Danenhower is on his way to this country.

Judge Temple, of this State, has rendered a decision in the "slickens" warfare, which requires all miners to impound their debris, and thus protects the farmers.

Harriet Beecher Stowe celebrated her 70th birthday June 14th.

The steamer *Escambia* capsized and sank off the Heads, near San Francisco, June 10th, from being top-heavy and badly loaded. Only three lives were saved. Later, the British iron ship *Lammermoor* was wrecked off Bodega coast, with no loss of life.

The Democratic Convention nominated General George Stoneman, of Los Angeles, as their candidate for Governor of California.

Chinese are being landed as rapidly as possible in San Francisco, prior to the exclusion act, which goes in force August 4th.

Charles J. Guiteau was hanged in Washington, June 30th, for the murder of President Garfield.

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No. 8.

A HOODLUM.

CHAPTER VIII.—THE WAYS OF THE WORLD.

UNITED STATES history is supposed to be taught in all the grammar schools of California, and by the time the pupils finish the book in the usual way, the brighter ones know that Columbus discovered America, that Pocahontas saved John Smith's life, that Washington was a great general and first president, and that the 4th of July, 1776, is mixed up with the declaration of independence. Just at the time of their examination, they are chock-full of dates and figures, of lists of battles and names of people. As three-fourths of the history is filled with wars, they naturally think that this nation has spent most of its time fighting. But after the pupils graduate comes a season of peace; names and dates fade away, and little is left save the privilege of saying confidentially to a friend, "I used to be real good in history, you know," and the friend says, "So was I."

The story of our country has faded from their memory; while the hero of the first novel they read is still fresh in their minds. Jack the Giant Killer is better remembered than Jackson, the hero of New Orleans and the president who first inaugurated the infamous spoils system. As to the history of other countries, they know but little, and care less. If they are good young people, and go to a proper kind of church, they learn a little of a history beginning with Adam and his apple, and ending with Christ and the Apostles; learning just enough of that kind of history to be good teachers in Sunday-

school, if they have David Cook's Lesson Helps. The young man whose thoughts turn to profane history (i. e., politics) studies Patrick Henry's speeches; and if a good wire-puller, may in due time get a position at Sacramento to legislate about subjects of which he knows nothing, to try crude experiments that have been exploded for ages, and to make laws that are opposed to every correct principle of progress.

Carl Benson did not believe in this way of studing history, and he put no school-book of United States history into Donald's hands. He tried to have Donald clearly understand the present condition of barbarous, half-civilized, and civilized people—how they lived, what they did, thought, and believed. Then, in a series of conversations, he traced the evolution of man from a state but little removed from the lower animals up to the present imperfect civilization. In this growth the environment played a most prominent part. The creature of circumstances, man thinks he is guiding the boat of life, when he is but the sport of the currents and the winds. Tossed hither and thither by forces over which he has no control, he mistakes the desires of his passions for the will which directs, and prides himself upon his mastery over himself and the world. Shoved here and there by the destiny that controls, he boasts of his free moral agency, and thinks himself ever able to choose. The fable of the ass that starved to death between two bunches of hay that were equally tempting is ever repeated in actual life.

Carl showed Donald the importance of the food supply to man, and how the greater or less difficulty in getting it produced a greater or less increase in population, and also contributed towards that reasonable leisure which fosters civilization. The kind of food used, and the effect the various kinds seem to produce, were also spoken of.

The apparel of the people formed another topic of conversation, and closely connected with this was the ornamentation which savage and semi-savage (fashionable) people delight in. Donald could easily perceive that pierced ears were hardly a step beyond mutilated lips or noses, and painted faces and flaunting feathers and ribbons became to him so many signs of childish savagery. Bracelets and rings may do for slaves, but they are sorry marks of a free civilization.

The shelter which man occupies or constructs was next discussed, and Donald read of the early cave-dwellers, of the homes in the trees or upon the lakes, and could not help thinking that such places might not be despised in these days by many of the dwellers in city and country. Surely a cave would make a more delightful home than the boxes he used to sleep in when he roamed a hoodlum about the streets of San Francisco.

The huts of the Esquimaux, the wigwam of the Indian of the plains, and the brush teepee of the Digger tribes—all were interesting. Then pictures of the ancient buildings in Central America, Peru, Greece, Rome, and other places gave Donald some idea of the civilization of past times.

The domestic animals were next spoken of, and the origin of the horse, cow, sheep, goat, dog, cat, and other domestic animals was the subject of many a conversation.

"No wonder my burro is so slow, when he only walks on one toe," said Donald. "Now, if he had three or four toes on each foot, like those horses they dug up in Colorado, wouldn't we just sail down the trail to Santa Barbara?"

At another time Donald came in and told Carl very gravely that his modified coyote (dog) had been chasing the Mohammedans from India (hens) and from America (*turk-eys*); for he so named the fowls on account of their birthplace and the number of wives the moslems were supposed to maintain, as well as the pun which has been so often made upon the word "turkey."

The influence of selection and cultivation upon the food plants and the animals was often spoken of; and the wide difference between the primitive peach and apple and the modern fruit, or between the Jersey cow and its wild Asiatic ancestor, was noted. That man could be, and in certain directions had been, improved in the same way was mentioned; and the practices of the ancient Spartan and others with regard to weakly or deformed children were read about.

The growth of different trades and professions was a pleasant subject to study, and Donald saw how men first supplied their few and simple wants without help from others; then how division of labor was gradually introduced, until in the course of time a man became but a small part of a complex social whole. Wherever the most people united for work, there was the most specialized employments; and while society became more powerful, the units or individuals became the more individually helpless. Luxury and famine walked side by side, and folly and misery were as twin sisters. Yet, as Carl showed the boy, there seemed to be two stages of progress in all the mechanical trades: first, a tendency towards greater and greater complexity of machinery and work; and then, when the demand for trained, intelligent labor became too great to be supplied, more simply constructed machinery, which would do the work almost automatically, would be invented.

As civilization increased, so the number of human parasites, criminals, paupers, and political pap-suckers increased. Diseases grew in numbers and complexity, vicious modes of living sapped the health of the people, and weakened parents begot sickly, deteriorated offspring, whom increased medical skill kept from a merciful death.

The origin of governments, though somewhat beyond the boy's comprehension, was explained in as simple language as possible; and the boy thought it strange that tyranny, slavery, and other evils should be necessary steps in the evolution of a free government; that wars and bloodshed should be necessary to the self-preservation of nations; that those who claimed to be better than their fellow-men should think it right to burn and kill those who differed from them in matters of opinion; that we, who claim to be the most enlightened of people, should now be trying to bar out a people who are too saving and industrious to be suffered to compete on equal terms with our own people. The prejudices of race, religion, and even the place of birth, are mighty factors in the history of mankind. Wars for conquest hardly exceed in number those carried on in the name of religion, and a shade of darkness in color, or a trace of brogue in the speech, outweighs many a noble quality.

How many on the Pacific Coast, besides the poll-tax collectors, think of the Chinese as "men"? As one five-year-old boy told me, "They are not *real* men, but *China*-men."

Carl and Donald had many a talk about the games, the songs, the superstitions, the customs, the mental acquirements, and the religious beliefs of various nations. The ways of the world are many, and human nature is *not* the same everywhere.

The lives of representative men of each age were read, and not only those of this country, but the great and renowned of other lands as well. That sort of history teaching which narrows a person's sympathies so that they extend not beyond the borders of his own country may make partisans, but not true patriots. "The world is my country," wrote a noble patriot a century ago, and we can have no country bounded by imaginary lines that can awaken the truest patriotism in the mind of the child.

"Lives of great men all remind us
We can make our lives sublime";

and the reading and study of noble men and noble deeds can hardly fail to awaken nobler thoughts in the mind of the child.

Not the tales of murderers and destroyers, like Cortez, Pizarro, and Napoleon, but real heroes who loosed the shackles of thought, and cut off the bonds of oppressors: our Newtons and our Franklins; our Lincolns and our Luthers—these are the lives to study and the names to revere.

Historical poems were read, and Donald learned many a patriotic song which made the life in earlier times a reality to him. "The Courtship of Miles Standish" and the "Sword of Bunker Hill" give faithful pictures of earlier times; and the smooth poetry of the former, and the dramatic energy of the song, do not detract from the lessons they teach. Though the "Skeleton in Armor" may have been no real "viking," he gave life to those early Norwegian discoverers that the later histories have just begun to tell of.

To make history alive, to substitute useful narrative for idle gossip, to make the past yield its lessons to the present, and by the light of former experience to shun in the future the same rocks on which we were once wrecked—these are a few of the lessons which history has for us all.

We can live again, if we will, over many a century of the past, and avoid those trials which have cost life, liberty, and happiness to those who could not or would not perceive the causes of the failures of others. History repeats itself because ignorance repeats itself; and where our leaders are blind, we cannot well escape the ditches and sloughs. Present self-interest blinds the eyes to future gains, and we will pay usury in the future for the parsimony of the present support we give to our schools, in which we should (but seldom do) learn the real lessons of history.

CHARLES M. DRAKE.

Santa Paula, Ventura Co.

AUF · WIEDERSEHEN.*

IN MEMORY OF J. T. F.

UNTIL we meet again ! That is the meaning
Of the familiar words, that men repeat
At parting in the street.
Ah yes, till then ! but when death intervening
Rends us asunder, with what ceaseless pain
We wait for the Again !

The friends who leave us do not feel the sorrow
Of parting, as we feel it, who must stay
Lamenting day by day,
And knowing, when we wake upon the morrow,
We shall not find in its accustomed place
The one beloved face.

It were a double grief, if the departed,
Being released from earth, should still retain
A sense of earthly pain ;

It were a double grief, if the true-hearted,
Who loved us here, should on the farther shore
Remember us no more.

Believing, in the midst of our afflictions,
That death is a beginning, not an end,
We cry to them, and send
Farewells, that better might be called predictions,
Being foreshadowings of the future, thrown
Into the vast Unknown.

Faith overleaps the confines of our reason,
And if by faith, as in old times was said,
Women received their dead
Raised up to life, then only for a season
Our partings are, nor shall we wait in vain
Until we meet again !

HENRY W. LONGFELLOW.

LOCAL GEOGRAPHY.

IT is lamentably true that teachers are not sufficiently practical in their methods of imparting instruction. Too much attention is given to the bare and uninteresting details of books, and too little attention to things—the objects about us. In no department of instruction is this more apparent than in that of geography. Pupils are taught to memorize indiscriminately, and, we were about to say, without any appreciation of the meaning involved, whole pages pertaining to distant countries which they never hope to see; while they are kept in profound ignorance of the natural, historical, political, social, commercial, religious, and educational facts of their own township, county, or state.

It is true, furthermore, that the leading facts and terms of descriptive, physical, and mathematical geography can all be learned within a circuit of twenty-five miles of every school-house in the land. In confirmation of the

* This beautiful poem, a tribute by our beloved singer to his friend James T. Fields, echoes the voice of our hearts as we realize that no longer will he sing for us the songs we cannot utter, or pray for us the prayers our dumb lips fain would speak. Sadly but hopefully we say with him, *Auf Wiedersehen*.

The poem is from a little collection—*In the Harbor*—called by Mr. Longfellow himself—alas! how appropriately!—Ultima Thule, and published by Houghton, Mifflin & Co. of Boston. [EDITOR JOURNAL.]

foregoing, we submit a few topics which can be applied, with slight modifications, to any village, township, county, state, or country.

LOUDON TOWNSHIP, SENECA COUNTY, OHIO.

First.—Boundary.

Second.—Draw map, giving principal streams, roads, railroads, villages, and natural curiosities.

Third.—History. 1, Settlement; 2, Organization; 3, Subsequent events.

Fourth.—Area in miles and acres.

Fifth.—Productions. 1, Animal; 2, Vegetable; 3, Mineral.

Sixth.—Villages. 1, Officers; 2, Duties.

Seventh.—Manufactures.

Eighth.—Schools. 1, Kinds; 2, Officers; 3, How supported.

Ninth.—Churches. 1, Kinds; 2, History; 3, Doctrines; 4, Officers; 5, Membership.

Tenth.—Professions. 1, Kinds; 2, Description.

Eleventh.—Business firms. 1, Names; 2, Duties.

Twelfth.—Societies. 1, Kinds; 2, Officers; 3, History; 4, Membership.

Thirteenth.—Leading men.

Fourteenth.—Publications.

Fifteenth.—Statistics.

Sixteenth.—Inducements for people to locate.

Seventeenth.—Miscellaneous information.

We specify a few of the advantages to accrue from this method of study:

1. It is natural, breaking up the routinism of the school, so fatal to the success of pupils.

2. It passes from the known to the unknown, the philosophic method of mind-development.

3. It cultivates the power of observation, the pupil coming in contact daily with facts which he has seen or may see at any time.

4. It makes intelligent citizens.

5. It enables the teacher, through the aid of his pupils, to create among the pupils of the district an interest which he could not expect to arouse in any other way. Every inhabitant of the district becomes for the time a teacher of the young.

6. It affords an opportunity for the pupil to become acquainted with the main facts of geography *at home under his own observation.*

J. FRAISE RICHARDS.

In *The Normal Teacher.*

Silence is the sanctuary of prudence.—*Gracian.*

Logic is the art of convincing us of some truth.—*Bruyere.*

Our deeds determine us as much as we determine our deeds.—*George Eliot.*

LESSON IN SPELLING.

THESE sentences contain but few words ; they are repeated in various positions and combinations, and are selected from Supt. F. W. Parker's tract on spelling.

- | | |
|----------------------------|--------------------------------|
| There is a mat. | The cat is on the mat. |
| This is a hat. | The rat is on the mat. |
| This is a mat. | The cat is on the chair. |
| This is the cat. | The black cat is on the chair. |
| I see the rat. | The bell is on the mat. |
| I see the mat. | The bell is on the desk. |
| I see a man. | The cat is in a pan. |
| Here is the hat. | The rat is in a box. |
| Here is a man. | Where are the cats ? |
| Here is a cap. | Where are the bells ? |
| Where is the man ? | The red chair is on the mat. |
| Where is the pan ? | Where have you been ? |
| Where is the can ? | Whose cat have you ? |
| Where is the fan ? | Whose hat have you ? |
| I am glad to see you. | The rat ran. |
| I am glad to see my cap. | The hen ran. |
| The man ran. | This is my sled. |
| Here is Frank. | The bread is in the pan. |
| I see a fat cat. | I met a man. |
| I see a fat rat. | I led the lamb. |
| Do you see the fat cat ? | Can I run ? |
| Do you see the man ? | Can the rat run ? |
| Do you see the black cat ? | The cat can run. |
| Frank had a hat. | The rat can walk. |
| I had a fat cat. | There is a box. |
| Did Frank have a hat ? | There is a fox. |
| Where was the hen ? | The box is on the table. |
| Where were the men ? | The blocks are on the table. |
| They were in the house. | The fox is in a picture. |

N. Y. School Journal.

THE QUINCY SYSTEM IN SAN FRANCISCO.

"Can such things be, and o'ercome us as a summer cloud without our special wonder?"

A ZA HARTZ was a youth of keen perception and close observation. When he had completed his common-school course, he knew not only the subjects he had studied, but he also knew how to teach them after the manner in which he had been taught. Being constructed somewhat on the "excelsior" plan, he attended the Normal School in order to attain nearer

perfection; and after absorbing any amount of scientific theory, and being put through the "training mill," he became a fuller if not a wiser man. He then began the practical work of teaching. In due course of time he acquired the indispensable "experience," and having attended innumerable institutes, and written various essays on "my method of teaching" everything, to say nothing of the lectures he had heard from teachers who had been "a quarter of a century in the profession," he was satisfied to consider himself one of the "qualified."

"But when, good easy man, he thought his greatness was a-ripening, then came a frost—a killing frost"—in the shape of cheering news from Quincy, that nobody outside of that most favored town knew how to teach school. Thus was Aza o'ercome firstly.

Secondly, there came a cry from San Francisco, that this "only" method had been practiced in that never-to-be-surpassed-in-anything town; but being so accustomed to having the best of everything, they never thought of making a noise about this particular excellence. "So near and yet so far?" "Only twenty miles away" from the "only" method, and the spring-time of youth wasted in gathering

"Nothing but leaves! Sad memory weaves
No veil to hide the past;
And as we trace our weary way,
And count each lost and misspent day,
We sadly find at last
Nothing but leaves! Nothing but leaves!"

All of the fruit was in Quincy, and the remainder in San Francisco, "only twenty miles away." Thus was Aza o'ercome again.

Aza Hartz, however, is a man whose motto is inscribed deep in his heart, and also on the cover of Webster's Dictionary. It is, "Get the best," and he resolved to go to San Francisco to see if it were possible for anybody outside of that place to learn to teach school.

One bright December morning found him within one of the large school buildings in the Golden City. He took a last look in a pin-cushion looking-glass at his general appearance, for he thought that a teacher must be particular when going before scholars taught on the Quincy plan, as their perceptive power is wonderfully developed; and then with a feeling of awe he entered the first class-room. "Good morning." "Good morning, take a chair, please. Visiting?" "Yes." "Teacher?" "Yes." "From the country?" "Yes." "The class is copying on paper the arithmetic exercise. By this they learn order, neatness, etc." Aza looked over a paper on a desk near by, and concluded that if "order is heaven's first law," this youth had little hope of heaven, except his youthfulness. The inventor of fractions evidently intended that in this particular example the larger number should be the denominator of the answer; but the boy, with a due regard for the law that the strong shall rise and the weak shall go below, put the larger number on the upper side. Is this the new way? Aza thought not.

Time, recess; scene, two teachers meet. "What is it?" "A teacher

from the country." "Thought so; there is one thing I have learned about country people, that is, to tell a country school-teacher from a granger." Aza continued his investigation through the building, but failing to find the object of his search, he wended his way toward another prominent school building. Braced up by experience, he entered this with a little more courage. "Good morning; I am visiting schools." "Have I the honor of addressing one of the new board?" "No; a teacher off duty." "Excuse me for the mistake." Aza was unable for some time to settle in his own mind whether or not he should feel honored in being mistaken for a San Francisco school director, being acquainted with them by newspaper reports only. For the lack of sufficient knowledge on the subject, he voted to let the subject "lie on the table," and give his attention to the subject previously in hand. The teacher continued: "The class may take geographies, and we will study in concert. Miss Mary may point to the places on the map. Where is Vancouver's Island?" Mary points to Newfoundland. Teacher's attention is attracted away. Class recite, "Vancouver's Island is in the Atlantic Ocean, east of North America." "Vancouver's Island is in the Pacific Ocean, west of North America." "Vancouver's Island is up in a balloon, boys." The last answer here recorded was given by a youth near Aza, but some distance from the teacher. If variety were real spice, this class could start quite a large spice store. The teacher informed the girl at the map that she was not sufficiently acquainted with the lesson, and it became necessary to declare a vacancy and appoint some one else. This kind of exercise being concluded, the teacher referred to a column of cities written on the board. "The girls may name the cities and the boys may tell the State." About one-third of the column being completed, the teacher closed the recitation, remarking that as they had been over it so much, she guessed they knew it all.

A look into other rooms revealed familiar methods only; but as it was with "Dr. Spooner in Search of the Delectable," failure only changed Aza's course, and not his determination, and he searched out another school building in a different part of the city. Here he was delighted to find an old acquaintance, and knew that he could talk and question without restraint. "I am looking for the Quincy method of teaching," he said. "I don't expect to find it here, however, because your room has no chairs for the accommodation of visitors, and the Quincy system invites visitors and is prepared to receive them. I want to stop a while and see what you are doing, for old times' sake. What class recites next?"

"This is what we call a 'broken day,'" was the reply; "the classes don't recite regularly. Let me see, we have not read yet, and we will have a reading class." The reading class was called, and the reading was similar to much that Aza had heard before. It had a beautifully liquid flow, and one of the sentences might be represented thus: He heldissat innizsand anputtinit the egg switche adfound.

"Do they teach the so-called Quincy system in San Francisco?" Aza inquired. "I have heard some of the teachers speak of such a system," replied Miss B., "but I don't know of any place where it is taught. Some of

the teachers have some excellent theories about teaching, but they do not practice them. They find that in order to get the regulation number promoted, they have to stick to rules and regulations and cut-and-dried plans. It would not do for them to get behind in their promotions, or they might get a reprimand."

The third day in the afternoon of his search found Aza leaning against a lamp-post, gazing at the full-length portraits of the pedestrians at the pavilion, saying to himself, "I wonder if I did not miss it by not entering this tournament. I have had three days' training, have accomplished a great many miles, and still have some reserve power. But if I had entered, I would not have had the training that I have had in looking for this Quincy system; and now that I have the training, it is too late, and the money to pay the entrance fee is gone. It is fifteen minutes to train time, and the best thing this investigating committee can do is to cease inquiries and return home; and when it goes to San Francisco again, let it be certain that what it is going after is there, and can be found."

ALLAN P. SANBORN.

Benicia, Cal.

A LANGUAGE LESSON FOR THE SECOND READER CLASS.

I. THE SUBJECT-MATTER OF THE LESSON.—“*The Swing*.—Frank has made a swing for Lucy and little Tom. It is in the old apple-tree that stands by the gate. Amy has come to visit Lucy and Tom, and they are giving her a fine swing. See how Tom can run under! Lucy has her hat on, but the wind has blown Amy's hat off. You can see it lying on the ground. It is May. The grass is fresh and green. On the apple-tree, little pink buds peep out from under the leaves. Soon those buds will open into pink blossoms, and fill the air with a sweet scent.”

II. STUDY OF THE LESSON.—1. The pupils read the lesson until fluency is acquired.

2. The teacher induces the pupil to discriminate the parts of each sentence. The pupil answers in complete sentences, emphasizing the word containing the answer. Who has made a swing? *Frank* has made a swing. How did Frank obtain a swing? *Frank has made* a swing. What has Frank made? *Frank has made a swing*.

3. The teacher induces the pupil to discriminate the sentences of the lesson. What is said of Frank? Frank has made a swing for Lucy and little Tom. Where is the swing? It is in the old apple-tree that stands by the gate. What is said of Amy, etc.

4. The teacher induces the pupil to discover the relations which exist among the parts of the lesson.

Sentence 1st expresses how the swing was obtained.

The 2nd sentence expresses where it is.

The 3rd and 4th express its use.

The 5th and 6th describe a little accident while the swing is used.

The 7th expresses the time of its use.

The 8th, 9th and 10th describe the grass and the pink buds of the apple-tree at that time.

5. The teacher discusses with his pupils the persons and things mentioned in the lesson.

The persons : Frank, Amy, Lucy, Tom.

The things: The swing, the hats, the grass, the apple-tree.

III. COMPOSITION.—1. The teacher requires the pupil to write the lesson with changed person and number. I have made a swing for Lucy and Tom. It is in the old apple-tree that stands by the gate, etc.

Capitals and punctuation marks as in the book.

2. The teacher requires the pupil to write the lesson as if Frank and Tom made the swing. (Change of number.)

3. Change of the subject-matter. Frank has bought a little wagon for Lucy and little Tom. He bought it from a man who has a store on the corner. Amy has come to visit Lucy and Tom, and they are giving her a fine ride. See how Tom can push, etc. It is June, etc.

4. Describe a swing. (For older pupils.) This last request is too difficult for the Second Reader class, as the uses of punctuation marks have not been taught yet.

IV. GRAMMAR.—The word Frank is used as the name of a boy. The word Lucy is used as the name of a girl. The word gate is used as the name of a thing. Persons and things are called objects. Words used as the names of objects are called nouns. Nouns are words used as names. They may be the names of persons, as Lucy, Tom ; or the names of things, as gate, apple-tree. Find nouns in your compositions. Why are they called nouns ?

V. SPELLING.—The teacher requires the pupil to write from memory part or all of the lesson, with diacritical marks, accent marks, division of syllables.

Note for the Teacher.—This lesson is designed to show how reading, spelling, composition, grammar, and study lessons can be concentrated into one subject, one study preparing the others. The language lessons of the Third Reader class should be, on the whole, the same. But word-analysis should be added. In the class of the Fourth Reader the study of synonyms, the forms of composition, and the properties of style should be added; in the Fifth Reader class, biographical notes of the authors should prepare for the study of English Literature. Geographical, scientific, and literary notes should accompany the lesson whenever necessary to a complete understanding of the lesson.

C. FALK.

In *N. C. Journal of Education.*

Nature, the vicar of the Almighty God.—*Chaucer.*

We teach too much by manuals; too little by direct intercourse with the pupil's mind. We have too much of words; too little of *things*.—*Daniel Webster.*

THE RELIEF OF MONOTONY.

TEACHERS need short, pithy, pointed essays, that will tell them what they can do to relieve the sameness of school-room work. One fault of school journals (so say teachers without number) is that they tell us what is *wrong* in our work, and give us but a small amount of remedy. Who is to blame—teacher or editor? A growing teacher searches after the best methods for conducting school work, and the journal that gives such special methods is sure to succeed, and such a teacher is sure to improve. Columns of journals all over the country are open to teachers, to give any new method of work, or any method which they find to be successful. This is what we want, and is what teachers are looking for, but I must say in vain, in a great many so-called journals.

Here are some of my methods for relieving the monotony of school-room work:

1. I use a copying pad that will give me forty or fifty copies. I draw a map—the State of Ohio, for instance. I mark rivers by letters, and twenty-five cities by figures. I give coal sections here and there, etc. I give a copy to each pupil, and they recite by calling the numbers and answering by mentioning the name of the place, and *vice versa*.

2. I copy off the most common words, cut in slips of five or six, and give them out to be copied and marked with accents, diacritical marks, syllables, and have them formed into sentences. I also use this pad for school blanks, for rules for spelling and pronunciation, forms of bills and business letters, language work, and various other matters.

3. I think we should avoid a strict adherence to book work, and endeavor to have a pupil understand that what is taught them are *actual facts*. Almost any one can teach *books*; but how many teach *facts* in such a manner that the pupil can and does put in practice what is learned in school? How many pupils can write a letter properly, and put the superscription on the envelope in proper form?

4. To secure this latter point, I find it a good plan to take twelve advanced pupils. I mark twelve good-sized slips of paper, and paste them on the desks in plain sight, each one marked with the name of some city. Let these pupils correspond daily with each other for four weeks, the letters to be corrected or marked by the person to whom it is written, and also by the teacher. Then return it to the writer for examination, that he may profit by the criticisms. Pupils can be added to the list as some are dropped.

I presume some teachers will say, perhaps, that this is too much work. No school will progress, unless it is taught by a hard-working, progressive teacher; nor will any other business of which I have any knowledge.

L. L. HASKINS.

American Educator.

Heaven ne'er helps the man who will not act.—*Sophocles*.
Not one false man but does unaccountable evil.—*Carlyle*.

WRITING AS A VEHICLE IN EDUCATION.

I SUPPOSE the average teacher will agree with the writer in the last JOURNAL in the postulate, that composition writing, so called, is one of the greatest stumbling-blocks that he has to deal with in all his school experiences. Most pupils have a horror of it. It comes to them like a decree to bring order out of chaos, to create something from nothing.

And this is really what it is; and especially where the necessary preliminary drill has been wanting. Our systems of instruction, whatever may be the aim of the instructor, result too much in the acquisition of isolated facts, without a corresponding development of general power, the *real* end of education. There is altogether too much text-book, too much running in grooves, too little general work, too little original investigation. Our text-book system is cramping. It confines the field of view to the interior of a very limited circle, while the world without becomes void space to the encircled text-book worm. It is into the outside world that we wish to send the pupil; and into this world only general work will lead him. General work, if properly directed, is necessarily a work of investigation, which awakens thought, because it shows the relation and connection of things. Investigation is expansive. It not only awakens, but it constantly widens, the range of thought. It does not sacrifice the whole to a part, but develops all the faculties of the child; and this is what we are or should be working for. We want to develop our boys and girls into as perfect specimens of manhood and womanhood as possible. We want to make them honest, upright, and conscientious. We want to make them intelligent and capable citizens and members of society; not passive elements simply, but active, moving, pushing forces in the work of crystallizing civilization. We are sacrificing the efficiency of our schools to the "palaver" of "practicality" in our educational system. "Our schools are not practical. There is too much of this, that, or the other taught. We want our children to have a practical education." The objection to this is, that "practical" here means *mercenary*, as it contemplates only the bread-and-butter side of the question. Perhaps it is a just though severe comment on the efficiency of our schools, that parents are more solicitous about the *business* qualifications of their children than they are for those qualifications which fit them for good citizenship and society; but these last are the proper work of our schools. They cannot turn out full-fledged lawyers, ministers, or physicians.

Why, then, should they turn out full-fledged mechanics, farmers, or merchants? All they can do is to put the pupil in the way of preparation for any of these vocations. The work of the schools is *general*, not special, training.

Assuming this view to be correct, it is easy to see *how much composition* the work of our schools will necessitate. Drop out of the vocabulary of the schools the term "composition," and a great bugbear disappears. But the fact of composition should remain an ever-ready vehicle in which the earliest and later facts of the pupils should daily ride. Facts or ideas are simply means to an end, and facility *in using* is only gained *by using*. The fact must be not vaguely, but fully, learned; the idea must be not dimly, but clearly,

apprehended. And the test must be the pupil's ability to give it intelligent expression, orally or in writing. Soon the child will realize that it *knows* something, and that it *can tell* that something intelligibly. This will stimulate its ambition to learn some new fact so that it can tell it. Each success is a new impetus to a new conquest, and under the wise direction of the teacher, the enthusiasm of the pupils spreads and grows, so that the work of the pupil becomes a work of variety and progress, instead of sameness and stagnation. Thus the thought-power, started through little struggles with little thoughts, gains strength to struggle more persistently with more stubborn facts and thoughts. Once the thought-power fairly started, you may drop the spurs and use only the reins.

Geography may be made an interesting field of investigation. Send our pupils to write up some country, following an outline provided by the teacher, widening out according to the capacity and advancement of the pupil. In the proper grade, instruct the pupils to load a ship at some port with a staple article of export, take the cargo to some port where there is a demand for it, sell it, and purchase a new cargo; which take to another market, etc., until the voyage is completed. Let a full narration of the voyage be given by the pupil. This exercise may be indefinitely modified and varied at the pleasure of the teacher. In this manner, too, a *practical* knowledge of grammar may be learned in much less time than a *technical* knowledge is now gleaned from the text-books. To this end, let the pupils of the same grade be constituted a class of criticism, through whose hands the written work of each shall pass. Let the errors, of whatever kind, be designated by numerals or letters, and then on the margin or on a blank page suggest the correction and call for the reason of it, or give it, as the teacher may instruct. This method I think flexible enough to meet the wants of all the grades from the primary to the high school, and might be very successfully used there. But in view of the maturing age of the pupil, and his position at the very vestibule of a real earnest life, I have found a modification of the plan to meet the needs of this preparatory stage more completely. The pupil leaves the schools to assume business relations and the duties of citizenship. To do this creditably, he must have a more general knowledge of the nature of business, society, government, his own individual rights and duties, and the mutual relations and dependencies of all these. The plan is this: We establish a paper to be published as frequently as may be desirable—once in two weeks, say. If the school be large, it may be put in two or more divisions; one division publishing one week, another alternating with this, etc. The editorial staff consists of an editor-in-chief and editors of departments, to be multiplied according to convenience. For instance, there should be departments of agriculture, finance, politics, education, foreign and home news, advertising, market reports, fashions, and so forth. The paper should also have its correspondents at prominent points.

The advantages of this method are: it makes each representative of the paper a specialist, leading him into a wide field of investigation; and it develops a spirit of emulation and enthusiasm that insures the success of the

plan. Finance, politics, education, etc., should each receive special attention; and in order that the full benefit of the system may be received by all, the departments should rotate so that each editor should have practice in conducting the different departments. Thus by a revolution of departments, a wide range of topics will engage successively the conductors of the paper, and at the same time increase the spirit of the enterprise; for it will be the ambition of each successive editor to assume advanced positions in his department. By this plan, special attention will be called to the manner and form of advertisements; the condition of the market, with range of prices of staple articles, and methods of quotations; and a multitude of other business facts and details will be brought into practical review. The publication of the paper consists in each editor reading his own department, on publication day, in such order as the editor-in-chief shall determine.

This plan of publishing saves labor, and secures the reading of the editorial matter by the one best calculated to give it proper expression. The editors of the departments may make requisition upon any they please for aid in their work. The domain of fact may not be strictly adhered to in all the departments. The imagination may be cultivated by an invasion of the land of fiction. It should be the aim of the political editor, in his discussion of current politics, to show wherein they conform to or depart from sound political principles. But it is not necessary to descend to the details of the various departments; they will be gradually suggested by experience. All departments and correspondence should be reviewed by the editor-in-chief before publication, for purposes of arrangement and criticism. The editor-in-chief's summary should contain a brief synopsis of the matter of the paper, and criticism of the manner in which his staff have discharged their duties, making whatever suggestions are necessary for the improvement of the paper and its conductors.

A. M. CHADWICK.

Coulterville, Cal.

THE C. L. S. C.

This department is under the editorial charge of Mrs. M. H. FIELD, San Jose, to whom all communications relating thereto must be addressed.

THE annual gathering of this ever-growing clan, at Pacific Grove, Monterey, has just come to a successful close. The beautiful grove has been a scene of remarkable improvement during the past year. It has had more than 15,000 visitors. The Southern Pacific Railroad Company has purchased a large tract of land, including the grove, and have divided it up into lots of varying size; have graded the streets and adjacent roads, and fitted up the grounds in a way to make it a most attractive seaside resort. Nearly seven hundred lots have been sold during the past season; one hundred and eighty-three in three days by a single agent; and, as readily may be seen, everything is "booming."

The exceedingly polite and patient superintendent of the grounds really has to stand on the defensive against the eager buyers who pull at his elbow and push for the best chances. We find each year the number of cottages and tents doubled, or even quadrupled, and the crowd of people seeking rest or recreation proportionably greater. Yet Pacific Grove does not lose its sylvan character. The pine woods still murmur to the sea, and a few steps take one into the forest primeval.

The assembly this year has had its usual supply of brilliant and competent lecturers, and the opportunities for marine studies, under able instructors, were never more constant and delightful. It opened with a grand address by Dr. Stratton. Professors Norton and Kleeberger of the State Normal School have each lectured to interested audiences; the former upon "How Ores are Formed," the latter upon "Combustion without Oxygen"—both finely illustrated. Prof. Volney Rattan discoursed charmingly upon the California Flora, and Prof. Keep of Alameda upon Conchology. Dr. Wythe of Oakland lectured in his usual attractive manner upon the five senses; and Dr. Anderson of Santa Cruz made marine botany seem a thing of beauty. Mrs. Bartlett, recently of Oakland, gave us exquisite papers upon Ancient and Modern Egypt; Mrs. Tracy Cutler, editor of *The Woman's Journal*, sent a remarkably fine scientific essay upon the "Circulation of the Blood"; and Mrs. Field of San Jose read carefully written papers upon "Early English Literature," particularly the life, times, and art of old Geoffrey Chaucer, "in whose gentle spright the pure well-head of poesy did dwell."

Dr. Dwinelle of Sacramento gave us a memorable sermon on the Sabbath, and a beautiful lecture upon Religion and Art on Monday evening. Prof. Simonds of San Jose a fine and admirably illustrated lecture upon "Ancient and Modern Crustaceans." Adley Cummins, Esq., of San Francisco, a learned and most interesting lecture upon the "Anglo-Saxon Language and Literature," a subject in which he is a specialist, owning the first Anglo-Saxon library in the United States. F. B. Perkins, of the San Francisco Free Public Library, read a remarkably able address upon "Archæology," showing great learning and research. It was listened to with profound attention, as it treated upon the vast theme of prehistoric man, dealing with the subject in a manner which, while entirely reverent towards revealed religion, yet questioned if it did not controvert the received interpretation of the Scripture chronology; and F. M. Campbell, our State Superintendent of Public Instruction, gave us a capital lecture upon "Education," the conclusion of which was as follows. Supt. Campbell said :

"I have spoken as if education were only a thing of the schools and for the period of childhood. I know that in a broader sense it is a thing for every age and for all one's life.

"'When the millennium comes,' Richard Dale Owen used to say, 'when there are no more reforms needed, we will all travel.'

"Yes, and we will all read and observe and study. We talk too much as if the student life were only preparatory; in fact, it is the ideal life itself. It is only the hard necessities of practical existence that prevent every day from being a sort of delightful grown-up school day, with some new acquisition in it, some new insight into nature, some new guidance from wiser minds than

ours. From wiser minds—for we should do all this, if it really were the millennium, *together*. Indeed, the perfected condition of the coming man and woman will be a sort of perpetual and world-wide CHAUTAUQUA CIRCLE.

"Men my brothers—men the workers, ever readying something new;
That which they have done but earnest of the thing that they shall do."

"Is it too much to claim that the CHAUTAUQUA CIRCLE is a part of the great system of public education in this country? It is a school, without restrictions of time and place and nationality and age—a grand university, whose walls are the wide air, and whose roof and dome is the all-arching sky, whose professors are all the great scientists, and historians, and philosophers, and poets, and artists of all the literatures. For entrance examinations it has only the test of earnest aspiration after a loftier intellectual life; for prizes and degrees it has the enduring award of an ever-wider horizon for the mind.

"The CHAUTAUQUA CIRCLE, as I understand it, has laid hold on the very principle that lies at the foundation of all our successful modern education—the principle of organization and co-operation. We have learned, at last, that a man himself amounts to nothing, can accomplish nothing. There may be, to be sure, some short-lived, spasmodic fervor in the solitary individual, some sudden aspiration for a higher development, some spirit of energy toward its attainment. Probably there is no one who has passed the optimistic period of early youth but has his times of realizing that he is one of those of whom more might have been made; and for a few days or a few weeks, he sets mightily about repairing the defect. But the glow dies down; the world, the flesh, and the laziness of the natural human mind beset him; and his intellectual advancement is still a matter of the "might have been's." Here and there a man of the greatest genius may accomplish something alone; for ordinary mortals it is impossible. The self-educated man—no wonder we respect him, and give him a place of honor; for, that he has succeeded in so enormous an undertaking, is itself an evidence of remarkable native power; and the nine hundred and ninety-nine who have failed all around him in the same attempt are only witnesses to his superior force. Our American civilization has come to the point where it is to-day, only by dint of organized co-operation in educational work.

"The pessimist may lie on his back, and whine out his question of whether life is worth living—and indeed it may be doubtful if his life is worth anything—to us; but no healthy mind can doubt that this wonderful human life is not only worth living now, but is coming to be better and better worth living. So long as we seek the highest ends, and seek them together, and seek them for each other, who can help seeing that there is endless hope for the generations to come?"

The Fourth of July was a gala-day, celebrated in the open air under the grand old pines. Our C. L. S. C. choir discoursed to us sweet and inspiring music, and Hon. George L. Woods of San Francisco gave us a truly magnificent oration. The evening was given up to a delightful musical and literary entertainment.

The Sabbaths were characterized by appropriate religious services, and excellent sermons were preached by Drs. Dwinelle, Bentley, Bushnell, Calhoun, and Jewett.

A memorial day was observed, in which the illustrious dead of the past year were honored. Mrs. Field spoke briefly of the venerable and world-lamented Longfellow, reciting some of his beautiful poems as his most fitting eulogy. Mrs. G. B. McKay of San Jose talked feelingly and eloquently of Emerson, defending his noble principles and character, and pronouncing him

a benefactor of the race. Rev. Dr. Sprecher of Oakland spoke of Darwin in terms of great fairness, insisting that he was not a theorist, but a patient investigator; not an Atheist, but a Christian; and that he should be regarded with respect by the Christian world. If the theory of evolution prove true, he said, it certainly will not conflict with the truths of the Bible; and of all people, Christians should be just.

The assembly closed with a social, when Miss Myrtie Hudson of San Jose, our first graduate, read us a delightful history of the Chautauqua Society, which renewed our enthusiasm for the C. L. S. C. We all joined heartily in its closing benediction upon the society which binds together so many congenial spirits, inspires such desire for the highest and best knowledge, encourages self-culture in even the most self-distrustful, and without fee or reward lends a helping hand to all who aspire towards higher levels.

The old officers were re-elected, with warm expressions of appreciation, and friendly greetings sent to the parent society. And so it is all over, and we go out with fresh courage, an army more than twelve hundred strong, to take up the duties of the new year.

EDITORIAL DEPARTMENT.

DO WE EDUCATE?

TO be educated means a perfect development of all the faculties; not mental merely, but physical and moral as well.

The child comes to the teacher, no piece of wax to be molded at his pleasure. A bundle of inherited tendencies, a being in whom are already sown germs for all possible good or ill, confronts him. Education consists in developing and strengthening all that is good; in directing restless activities into useful channels; in neutralizing whatever is evil.

Neither the teacher nor the school can create anything. The teacher takes the child as he is, and by means of the knowledge there is in books and in himself, he builds up his mind; by his example and his love, he refines his feelings; and through exercise and work, he strengthens his body.

This is what we understand by education.

The ability to read and write certainly does not constitute an education. That such knowledge should prevent crime, not even the most enthusiastic optimist can claim. It is symmetrical training, a knowledge of nature and of books, the proper and healthful development of the body, the strengthening and enlargement of the moral nature, that constitute the only education worth the name—the only effectual prevention of crime.

Now, in this full sense, do we educate?

Is there a city in California that really educates? Take San Francisco—where the spasms of indignation at the enormous expense of supporting the public schools are more frequent than earthquakes, and infinitely more damaging—does San Francisco educate? Does she educate when *ten per cent.* of her children are never brought within the walls of a school-room? Does she educate

when not twenty-five per cent. of her school-children ever get to the grammar school, and not five per cent. ever reach the high schools? Is education possible with many untrained, half-educated teachers, employed merely because they are cheap?

There is an agonized wail just now from the California press about cheap labor, and none howl louder and more dolefully than the Pixleys and the politicians. This means that Chinese labor is too cheap to wipe our dishes, scrub our floors, do our dirty work generally. Is no labor too cheap to educate our children?

The problem is this: Can we educate under existing conditions, and with the present surroundings? We answer emphatically, no. The *politicians* will not let us; the *know-everythings* of the press hold us back; the *shallow-reasoners* forbid us by talk of over-educating the masses, as if it were possible (education being a preventive of crime) to over-educate anybody.

We cannot educate. We are in the condition of a locomotive with more cars behind to draw than its power can master. Or more aptly, the schools are like a half-starved horse vainly tugging at a load requiring the energy of sound, well-nourished sinew and muscle. Our task-masters draw up the plans for a grand edifice. The structure must be solid and symmetrical; it shall be beautiful and yet substantial; and to erect it, they give us a sixpence. These illustrations are not far-fetched. It is precisely the relation in which a large number of unthinking people stand toward our schools.

To educate—educate in the true sense—these things are essential:

1. School accommodations for all the children in a community, and a compulsory attendance law (if need be) to bring them to school.
2. Buildings constructed on hygienic principles, with good light, good ventilation, proper drainage, proper temperature in both summer and winter.
3. Trained and thoroughly educated teachers. This requires money; not the wages paid a Chinese cook—thirty dollars a month and board—but a salary in consonance with the importance of the work, the grave responsibility involved, the time and capital required in preparation.

The problems society is called on to discuss and settle are these: If it is worth one hundred and fifty dollars a month to train a colt for the race-track, how much is it worth to prepare a child for the race of life? If a shepherd gets forty dollars a month “and found” for herding sheep, how much should be paid the shepherds who lead and protect these more precious flocks? If the clerks in the City Hall get one hundred and fifty dollars a month for doing something every school-boy of fifteen can do as well, how much is this higher, more difficult work worth—this work which calls for rarer qualities, a wider culture, more systematic training?

4. *Competent and faithful supervision.* Without this no school system can be a success. Just as every railroad needs its section superintendents, its division superintendents, and its managing superintendent; as every important manufacturing establishment has its close system of supervision—so our schools require the same principle applied in their conduct.

And this superintendent should be, first of all, an educator in the broadest sense. He should understand education as a science and as an art. He should be a man of culture, and this, too, in the broadest sense. He should be an honest man—honest not only in being true to pecuniary obligations, but in the wider sense of faithfulness to private and public duty.

5. When the community has provided these essentials (without which there never has been and never can be education)—has provided adequately the money to buy them—but one thing more remains: **LET THE SCHOOLS ALONE.**

WASHINGTON COLLEGE.

IN our advertising pages appears a full statement of the reorganization of Washington College, an academic institution in Alameda County. It is an enterprise in which the editor of the JOURNAL is specially interested. He means to present in this school his ideal of an educational institution, where young men and young women may live under the same roof, and be trained under a system of education which, developing the mental faculties, shall train equally and symmetrically the moral nature and the physical.

The college at Washington was organized about eleven years ago. At that time W. F. B. Lynch, now teaching in Alameda County, then its superintendent, and Mr. Lyser, of the JOURNAL, then vice-principal of the Washington Grammar School in San Francisco, perceiving the need of more advanced schools in California, where the education given should have a practical character, in addition to the ordinary literary and classical courses of study, devised the plan which resulted in the founding of the college. The many advantages of the site at Washington Corners immediately fixed their attention. A climate unsurpassed for salubrity; a gentle eminence, commanding a fine view of the beautiful Santa Clara valley; the center of a number of prosperous villages, inhabited by a moral, enterprising, and wealthy people; directly on the line of railroad, and in close communication with all parts of the State and of the Union—here was a situation unequaled on the coast. When the plan for incorporating a college association and erecting buildings was submitted to this neighborhood, its citizens came forward, and the suggestion was soon an accomplished fact. The leaders in this undertaking well deserve mention here, and remembrance forever. First and foremost came E. L. Beard, an Argonaut who came to this coast in 1843, even before the other Argonauts, and who has but lately gone to his long home. His partner and step-son, H. G. Ellsworth, equally free-hearted and open-handed, nobly seconded his efforts. Then with equal liberality at first, and with still more effectual generosity when most needed, Henry Curtner came. There was Hon. M. W. Dixon, a legislator, whose fair reputation partisan malice has never sought to blemish, and who has fostered education as the chief bulwark of the State. Then last, but by no means less ready or less liberal, were G. M. Walters of Washington, honest and successful farmer and intelligent citizen, J. T. Walker, John L. Beard, L. E. Osgood, and a host of others whom it is impossible in our space to name. These men deserve to be known, for their undertaking was a noble one and unselfish. They could gain nothing: future generations alone would profit.

So with money raised from all—in sums sometimes in thousands, sometimes in tens—buildings were raised suitable for a home school, surpassed in extent and beauty only by one or two institutions in the State.

Here for ten years a good school was conducted. The original idea was departed from somewhat, but the institution was still a success. And now, after a lapse of ten years, one of the original founders has taken the institution, and with an excellent corps of teachers, a crucial experiment will be undertaken.

It will be seen if the time is ripe in California for a good *practical* school; i. e., a school where boys and girls will be fitted (as far as any school can fit them) for some of the pursuits of actual life.

It will be seen if a school offering the best educational facilities of our cities, with entire absence from the temptations and corrupting influences of city life, can, for those very reasons, command a wide support.

It will be seen if, in a community wealthy and energetic, a school preparatory to and a feeder of our universities and colleges can succeed.

An institution like this is not in opposition to our public schools. On the contrary, its work is directly supplementary, and both are links in the same great chain which binds together man and man.

CO-OPERATION IN SCHOOL WORK.

DID you ever pause to reflect how much time and labor and success is often sacrificed by a lack of co-operation among school officers and teachers? It is a self-evident truth that if matters do not run smoothly at headquarters, surely no great degree of success may be expected among the pupils themselves. If the grown-up children cannot agree, can you expect the ones under their care to do any better?

There is no reasonable excuse for this among teachers themselves. If a person has the tact to instruct and manage a roomful of children, surely he ought to possess a sufficient amount of the same material to enable him to work harmoniously with others of the profession with whom he is brought into contact; and from personal observation, we are glad to say that this is generally the case. The trouble, if it comes, is too often with school officials who constitute the teacher's legal superiors. To work a radical reformation here would be a slow process, and would involve educating the public to such a degree that they would place in educational offices only such men as evidently have some fitness for the position. But a partial remedy lies in the teacher's possession, and that is, to exercise the same tact outside that he does inside the school-room. Make the best of what you have. Remember that the school trustees or board of education are your legal superiors, and if you cannot convert them to your own way of thinking, do not be so childish as to antagonize them.

By the provisions of our school law, county boards of education have an actual majority of teachers in their structure; so here there seldom ought to be friction in their dealings with the individual teachers of their county. It almost goes without saying that here should be the fullest co-operation and sympathy. There is nothing that will prove so effectual a damper to enthusiasm on the part of teachers as to have some cherished plan for the good of the school squelched or neglected by a county superintendent or board of education, who, without sacrificing one jot of self-respect or legal right, could have aided by their co-operation as well as not.

THE WORK OF THE JOURNAL.

IT can hardly be necessary to call attention to the excellent table of contents of each month's JOURNAL, or to make comparisons between it and the old *California Teacher*.

The increased correspondence from many sections of the State, the frequent extracts made from our pages by our educational contemporaries, are all significant of merit and approval.

We have been promised original articles by some of the best-known writers of the State; and illustrated sketches of our most prominent educators will from time to time appear. In a practical direction, the work of the JOURNAL shows considerable improvement. We believe the departments of "Examination Questions" and "The Pupils' Corner" will be of service in graded schools, as well as in every district school in the State. Our sets of examination questions will be assorted; i. e., selections will be made from the papers used by the different county boards of the State.

We are glad to note recently a great increase in correspondence from teachers in all parts of the State. School news is sent us from many points, and superintendents show a disposition to co-operate actively with us in our work.

This is a good sign. It shows not only a proper spirit in the teachers, but likewise a proper appreciation of our work. The superintendents and teachers who do this work stand highest invariably, not only in the estimation of their own constituency, but in the opinion of the best educational sentiment of the coast.

We solicit from all teachers and superintendents a participation in interest and effort.

Our office is now supplied with more and better help than at any time since the first issue of the JOURNAL. The wants of subscribers are promptly attended to. Inquiries are promptly answered. A system of book-keeping, thoroughly systematized, prevents mistakes either in our mailing or in other books.

So we again invite the warm interest and hearty co-operation of the teachers of the State. With their sympathy and their aid, we shall certainly make it a power in the land.

FRIDAY AFTERNOON EXERCISES.

READER, are you returning to your school-room casting a longing eye backward upon the delights of a vacation, and anticipating a renewal of the wear and grind of school life just as you have experienced it before? Do you not realize that you have the power to make it different yourself? Seize upon some one or more small ideas, vitalize them, and incorporate them, for a time at least, into your school life, and note the change. Originate these ideas yourself if you can. We always love our own the best. If not, take those of some other person, and amplify them or change until you are suited and they seem your own.

For instance, there is Friday afternoon, both welcomed and dreaded by many teachers: welcomed as a brief respite from the class-room; dreaded for the monotony of stale repetition of composition and declamation, for which the teacher himself is too often responsible. Such exercises need not be stale and monotonous if properly conducted. Be sure that the essays and recitations are prepared properly and in time, and do not be afraid to descend to the minutiae in so doing. Intersperse music through the programme. To be in full sympathy with the performers, participate yourself. Prepare in your best style an occasional select reading or recitation; or better still, an informal talk or lecture, illustrating some one of the thousand attractive features of elementary science in any one of its branches, illustrating by use of object lessons.

"But," says one, "all this is so much work." To be sure it involves work, and if you think that you will have success in this or any profession without it, the sooner you stop teaching the better both for you and the profession. But to

the earnest, enthusiastic teacher, ways to work are regarded as steps to help him on, and he is well repaid by the visible growth of the minds under his charge.

THE TEACHERS' AGENCY.

THE Teachers' Agency, in the JOURNAL office, conducted by Miss Julia M. White, is doing an excellent work and meeting with remarkable success. She attends to her business with that conscientious devotion to duty which marks her sex, and with exceptional business capacity. Counties which have been supplied by her with teachers are sure to come again. Teachers who feel that they are always dealt with fairly, and not "squeezed" out of the last drop of their hard-earned pittance, frequently send her news of vacancies, and recommend others to her care.

We recommend good teachers who desire to change their positions to correspond with her. We recommend trustees and superintendents who wish to fill their schools with the best teaching talent available to apply to her.

This is a case where both trustees and teachers will surely be satisfied.

POSTPONEMENT.

OWING to the illness of Prof. C. W. Childs, the writer, we regret to announce the postponement of the second of our series of sketches, "Educators of the Pacific Slope." The portrait of Prof. Allen was engraved, but on account of the illness of Prof. Childs he was not able to send us the sketch until August 3rd, too late for publication in this number. In our September number we hope to present a sketch of the life and work of the Hon. F. M. Campbell, State Superintendent of Public Instruction. In our October issue will appear the article on Principal Allen.

THE STATE APPORTIONMENT.

STATE SUPERINTENDENT CAMPBELL has just made the annual fall apportionment of school moneys to the schools of the State. The amount this year is \$334,059.10; or \$1.55 to each of the 215,522 census children entitled to apportionment.

OFFICIAL DEPARTMENT.

SUPERINTENDENT FREDERICK M. CAMPBELL, EDITOR.

TEACHERS FROM THE EAST.—Daily, from all parts of the Eastern States and Canada, letters are received at this office from teachers, and those wishing to become teachers, applying for positions or making inquiries as to the prospects for those intending to come here for the purpose of teaching.

As other school officers and teachers, too, no doubt receive similar letters, I give here a circular with which I reply to these letters, and which answers many of the questions asked. It may be suggestive and useful to those who are called on to answer eastern correspondence upon the same subject.

DEPARTMENT OF PUBLIC INSTRUCTION,
SACRAMENTO, CAL., 188

In answer to your letter of inquiry of the , I am forced to say that very poor inducements can be offered for teachers to come to California. The field is limited, and the supply of teachers is in excess of the demand. For every position at all desirable which becomes vacant, there are scores of applicants already here on the ground. It would, therefore, be quite unreasonable for you, not being here, to expect to secure an appointment.

If you decide to come to California, you must do so expecting to take your chances with those who have preceded you from the States east of the Rocky Mountains, or have qualified themselves for their profession in our own normal schools, university, or other institutions for higher education. Each local board of trustees selects its own teachers and fixes their salaries. As evidence that the local supply of teachers meets the demand, it may be here stated that from the whole twenty-one hundred and more school districts in the State, but *two* applications for teachers were received at this office from January 1st, 1880, to May 1st, 1881.

The average monthly salary paid to male teachers during the last school year was \$80.26; to female teachers, \$64.73. The length of time school is maintained each year varies in different parts of the State from six to ten months.

Each of the fifty-two counties has its own board of education, which examines teachers and grants certificates of two grades: (1) First-grade county certificates, valid for four years, and authorizing the holder to teach a grammar school; and (2) Second-grade county certificates, valid for two years, and authorizing the holder to teach a primary school. The certificates so issued are valid in the counties only in which they are granted, and outside of incorporated cities. Cities have independent boards of education and boards of examination, which, in addition to first and second-grade certificates, grant high-school certificates upon special examinations. The only credentials from other States upon which city or county boards may issue certificates without examination are State Normal School Diplomas and State Life Diplomas. While the county boards of education now (since January 1st, 1880) adopt their own rules and regulations for examining teachers, fix the time (semi-annually, however) for holding the examinations, and decide upon the branches of study and the percentage to be obtained in each, yet they have so largely followed the general system pursued by the State Board of Education, when, under the old Constitution, that body issued State certificates, that except in the time for holding examinations they do not materially differ. The following, from the rules adopted by the Alameda County Board, is given as a fair sample of all:

RULE 6.—The following are the subjects, order, and standard adopted for examinations, and applicants obtaining 85 and 80 per cent. on an average shall receive first and second-grade certificates, respectively; provided that applicants who fail to obtain 65 per cent. in each of the first three studies shall receive only second-grade certificates; and applicants failing to receive at least 50 per cent. in any one or all of the first three studies named must be dismissed from the examination.

Candidates must pass examinations in the following studies:

STUDIES AND PERCENTAGES.—1. General questions; 2. Orthography, 100; 3. Grammar, 100; 4. Written Arithmetic, 100; 5. Geography, 50; 6. Reading (oral), 50; 7. Theory and Practice (oral), 75; 8. Defining, 50; 9. Oral Arithmetic, 50; 10. Oral Grammar, 50; 11. History of the United States, 50; 12. Composition, 50; 13. Penmanship (and oral), 25; 14. Algebra, 50; 15. Natural Philosophy, 50; 16. Physiology, 50; 17. Book-keeping and business forms, 50; 18. Constitution of the United States and California, 25; 19. Drawing, 25; total, 1,000.

Please excuse me for answering your letter by circular. It is utterly impossible for me in any other way to reply at length to all the letters of similar tenor which are constantly received from all parts of the Union. Should you desire to open correspondence with any of the local Boards of Trustees or Boards of Education, an Educational Directory, containing the names and post-office address of all the school officers of the State will be sent you upon receipt of six cents in postage-stamps.

I am, very truly yours,

FRED. M. CAMPBELL,
Superintendent Public Instruction.

ATTENDING SCHOOL IN OTHER DISTRICTS.—Can the trustees of district "A" prohibit children in their district from attending school in district "C" when there is a good school in "A," when there is no question of convenience involved, as the children live within a half-mile of the school-house in "A," and, in order to attend school in "C," have to cross district "B," and travel a distance of about five miles?

ANSWER.—The power of trustees in the matter of children going from the district in which they live to attend school in another district, ceases with their refusal to "make arrangements" for such attendance with the trustees of the other district. (Sec. 1617, subd. 15.) I do not find anywhere that they have power to prohibit children from going wherever their parents choose to send them.

Unless, however, upon appeal of the parents from the trustees of district "A" to the County Superintendent, that officer should give his "final" decision against the trustees, the children so attending school in district "C" can draw no money from district "A." If they go to district "C" to attend school, it must be at their own expense or that of district "C."

If children go from "A" to "C," "C" will be the gainer when "surplus" money is apportioned on average attendance, as per section 1858, subdivision 4, and "A" will be the loser in the same proportion.

TRUSTEES NOT AUTHORIZED TO GIVE PROMISSORY NOTES.—You state in your letter that your district receives only \$400 per annum to maintain an eight month's school; that you owe \$142 for building a school-house; that you have no funds, and ask if a note can be given in payment, etc.

State and county money is given to districts for the purpose of maintaining schools, and not for the purpose of building or repairing school-houses. I know of no provision of law authorizing trustees to give notes or evidences of indebtedness against districts. Section 1623 forbids trustees from contracting indebtedness in excess of the school money accruing to the district for the school year in which the contracts are made.

The debt can be paid by voting a special district tax; or it may be paid from any balance of *county* funds remaining on hand at the end of the year, provided an eight months' school has been maintained.

IRREGULARITIES IN EMPLOYING AND PAYING TEACHERS.—“Two of our trustees employed a teacher who had no certificate, contrary to the wishes of a very large majority of the district. After teaching some three months without a certificate, she passed the examination before the county board, and obtained a second-grade certificate. Three weeks after this the two trustees drew and signed an order for \$201 in payment for *these three weeks*, nothing having been paid for the three months during which she taught without a certificate. 1. In getting the money in this way has any person laid himself liable to the law? 2. Has this district lost its organization? 3. If not, will the district lose its apportionment for the following year?”

The whole proceedings concerning the appointment and payment of the teacher are, according to the facts stated in your letter, irregular and illegal. If by reason of such proceedings a legal school was not maintained for six months your district will not be entitled to apportionment this year. See section 1860.

Somebody is certainly to blame for this condition of affairs, and as it is difficult to determine at this distance, on *ex parte* statement, who are the responsible parties, I would recommend that you refer the matter to the District Attorney of your county. By section 4256 of the Political Code, he is made “the public prosecutor, and must give, when required and without fee, his opinion (in writing) to county, *district*, and township officers.”

Your district has not lost its organization by reason of these irregularities, and you are the legal trustees. If you fail to receive your apportionment you can maintain school only by raising money by special tax for that purpose, as provided for by sections 1830 to 1839.

REMOVAL OF TRUSTEES.—You say that one of your trustees has violated nearly all the provisions of section 1617, and that you have demanded his removal by County Superintendent —, and that you do not agree with the superintendent that he has not the power to declare the office vacant. In that position he is correct. It would be a dangerous power to place in the hands of a superintendent.

Section 996, Political Code, page 38 School Law, edition 1881, prescribes how vacancies occur. In this case it would be by “the decision of a competent tribunal,” etc.

Section 4256, Political Code, page 41 School Law, makes it the duty of the district attorney to “give when required, and without fee, his opinion to county, *district*, and township officers on matters relating to the duties of their respective offices.” If you will call upon him and state your case, he will doubtless direct you how to proceed.

DIVISION OF SCHOOL DISTRICTS—CONTROL AND MANAGEMENT OF SCHOOLS, ETC.—“Our district is some twelve miles long, with a total of twenty-eight census children. The school-house is in about the center of the district.

The heads of three families, representing fifteen census children, living in the extreme northern part of the district, petitioned the board of supervisors for a division of the district. The petition was laid over for action to a future meeting. Favorable action will virtually abolish the present school, which has been established ten years.

"1. Can the supervisors decree the division, when by so doing the permanency of the original school is endangered, in contravention of the wishes of the trustees?

"2. Can there be two sets of trustees in one district? and if not, can the supervisors compel trustees to issue orders to a teacher for teaching in any but the first-established school?

"3. In case of division, would the new district be entitled to one-half the library? or in case of two buildings in one district, can the library be mutilated?"

Your letter of the 14th, addressed to ——, has been forwarded to this office for answer.

The board of supervisors can divide a school district when the provisions of sections 1577 and 1578 have been complied with; but it must be done at their *first* meeting after the receipt of the petition. (See section 1579.) After they have divided, or refused to divide, their power ceases. They have no control over schools or school-houses. The school is under the sole management and control of the trustees, and there can be but *three* trustees in one district. Section 1612 fixes the number of trustees, and 1617 prescribes their powers and duties.

Sections 1830 to 1837 provide for building new school-houses. Subdivision 20 of section 1617 provides for changing location of same; and in neither case do you need the advice or consent of the board of supervisors.

In case of a division of the district, the library would not be divided, but would remain the property of the old district; it is only *money* that is divided, as per section 1582. In the case of the erection of a second building in the same district, the trustees would have power to divide the library between the *school-houses*. (See section 1715.)

ELECTION OF TRUSTEES.—You state in your letter that in June, 1881, your district elected three trustees as follows: A for one year, B for two years, and C for three years; that A failed to qualify, and Superintendent — appointed D to fill the vacancy. If that is a correct statement of the case, you should have elected in June, 1882, a successor to D for the term of three years. B should hold one year longer, and C two years.

LISTING CENSUS CHILDREN IN TWO DISTRICTS.—"When the children of a family are taken by the census marshal in one district, on the *morning* of the 15th of May, and the same family moves into another district in the *afternoon* of the 15th, and the children are taken by the census marshal of the second district, which marshal is entitled to list the children? My lawyer here decides in favor of the one who first listed them."

I concur in the opinion given by your legal adviser. The children having been *once* listed in accordance with the provisions of law, they cannot be listed a second time in another district the same year.

TIE VOTE FOR TRUSTEES.—In case of a tie vote for school trustees, a special election must be held, as provided by section 1067, Political Code. (See page 39 School Law, edition 1881.)

APPORTIONING MONEY TO LAPSED DISTRICTS.—A superintendent writes as follows: Can I, under any circumstances, apportion school money to a district having eight census children? One district is unfortunate, in that several children have moved away during the last month, reducing the roll to eight, and leaving these twelve miles from any other school-house. The residents say that other families will move in this fall.

Answer.—Subdivision 3 of section 1858 fixes the minimum of census children which entitles a district to apportionment at *ten*, and the law is inflexible. If a deviation or exception might be made for eight or nine, it might also be for four or five. The line has to be drawn somewhere, and the Legislature in its wisdom has fixed it at ten.

VISITING AND EXAMINING SCHOOLS.—There is no definite or specific construction or interpretation given to that subdivision of section 1543 concerning "visiting and examining schools" anywhere in the law. Indeed, it would be quite impossible to fix just the amount of time to be given by the superintendent, or to fix the degree of thoroughness of the examinations. It should be in each case such as to furnish the superintendent, for one thing, with a proper basis for properly grading the school. For another thing, it should be such as to enable him to be perfectly satisfied that the teacher is properly performing his or her duties, and that the State and district are receiving an adequate return for the outlay of money.

Of course different schools will require more or less time, according to circumstances. To fix any definite time or prescribe any set form, or set any limit of thoroughness to these examinations, would be to hamper the superintendent to the extent of almost if not entirely defeating the objects of the provision.

COUNTY CERTIFICATES AND NORMAL DIPLOMAS OF OTHER STATES.—In reply to your letter of inquiry of the 8th instant, now before me, I have to say that section 1775 very explicitly and distinctly provides that the only Eastern normal schools, upon the diplomas of which county boards may, without examination, issue their certificates, are *State* normal schools of other States. "Holbrook Normal School," nor "Knox Normal School," nor "Gloucester Training School," nor "French's Normal Academy," is, neither of them, a State normal school. Ohio has no State normal schools, and therefore there is no normal school in that State whose diplomas can be legally recognized by county boards. If it be true that State certificates in years past have been issued upon these diplomas, it forms no precedent for action by county boards. They have their being from the law of 1880, and are governed by the present law as amended in 1881, and that gives them no authority to recognize the diplomas of private normal schools even of our own State, much less of other States. There is not the slightest ground for a moment's difference of opinion upon this point.

NEW DISTRICTS—FAILING TO COMMENCE SCHOOL—CENSUS CHILDREN, ETC.—A superintendent writes as follows :

1. A new district was formed in this county on the 8th of March last. The census was taken, but no school has been opened, and the order creating the district "ceased," therefore, on the 8th of July, in accordance with section 1581. Now, how shall the census taken in this district be reported to you (the State Superintendent) ?

2. Another new district was formed about the middle of June. The census was taken, but no school has been opened. How shall the census be reported—in the name of the new district, or added to that of the old district? When the trustees open the school, will this new district be entitled to a division of the moneys according to section 1582?

3. Inasmuch as neither of these two districts maintained a school during the year ending June 30th, 1882, do they appear in my report of that year under any other head than that of new "districts formed during the year"?

Answer.—1. In the case of the first district—the one organized or formed March 8th, and in which the trustees have failed to open school—the order creating it ceases (sec. 1581), and the district is as if the order never had been made, and the census children therein should be reported with those of the original district as it was before the order of division.

2. In the case of the second district—the one formed in June—the division took place after the regular census was taken in May, and the census of the original district must be reported. If school is opened within four months (1581-82), then the money to the credit of the old district at the time school was first opened in the new district, and such as may afterwards be apportioned, must be divided between the old and the new districts *pro rata*, and a census may then be taken, if necessary, to ascertain the number of census children in each district. After school has been maintained eight months in the new and old districts, the new district will be entitled to receive its apportionment as an independent district (1589).

3. Neither of these districts can be reported in any other way than as new "districts formed during the year," because until school has been opened, money apportioned, received, and disbursed, reports received from teachers and trustees, etc., there is nothing else to report.

APPEAL FROM COUNTY BOARD.—I know of no power to which you can appeal from the decision of the county board in the case you cite. These boards are given full control of the matter of teachers' certificates within their respective jurisdictions. The power is conferred by section 7 of article 9 of the Constitution.

SCIENCE RECORD.

THIS RECORD is under the editorial charge of Prof. J. B. McCHESNEY, to whom all communications in reference thereto must be addressed.

PROFESSOR HUXLEY is authority for the statement that the old cesspools were preferable to the water-sewerage system as it exists in most modern cities.

A COMPLETE cure for dandruff is said to be effected by washing with a solution of borax every tenth day, and using bay rum each alternate day. At first use it every day.

INSTANTANEOUS photography is becoming marvelously minute in its effects. An Englishman has photographed a swallow on the wing, and fixed the bird's shadow on the water perfectly.

A LEADING scientist is reported as saying that with the improvements now going on in telephonic communication, it will not be long before conversation taking place in San Francisco, can be heard in Boston.

SINCE 1840 the Atlantic steamers have increased their average speed from 8.3 knots to 15.6 knots, or nearly double, while the consumption of fuel per horse-power has been diminished about sixty per cent.

DR. HAMMOND says that when you poke the end of your finger in your ear the roaring noise you hear is the sound of the circulation in your finger; which is a fact, as any one can demonstrate for himself by first putting his fingers in his ears, and then stopping them up with other substance.

CAST-IRON, according to *Van Nostrand's Magazine*, though now so universally employed, was not in commercial use before the year 1700, when Abraham Darby, an intelligent mechanic who had brought some Dutch workmen to establish a brass foundry at Bristol, conceived the idea that iron might be substituted for brass.

WHAT a wonderful, inventive country this is! During the past year no less than 23,012 applications for patents were filed, of which number only 617 were for the reissue of patents expired, the rest being for something that the inventor at least considered new. The number of patents really issued was somewhat less than this, being only 13,947.

ONE of the hardest woods in existence is that of the iron-wood tree, which grows in the dry wastes along the line of the Southern Pacific Railroad. Its specific gravity is nearly the same as that of lignumvitæ, and it has a black heart so hard, when well seasoned, that it will turn the edge of an ax, and can scarcely be cut by a well-tempered saw. In burning it gives out an intense heat.

AN INGENIOUS New York clock maker, named D. A. Buck, has made probably the smallest steam-engine in the world, for it is almost microscopic in its dimensions. The whole machine weighs only about a gram, or fifteen grains, and is entirely covered by an ordinary thimble. The stroke of the piston is a little over two millimeters, or 1-12 inch, and its diameter is something less than a millimeter and a half. Nevertheless it is built up of 140 distinct pieces, fastened together by screws, and three drops of water suffice to fill up the boiler and set the toy mechanism in motion.

THE following note we publish in this Record in the shape in which it was received :
LONE PINE, INYO COUNTY.

PROF. J. B. MCCHESNEY—I notice in the April SCHOOL JOURNAL Science Record a notice of the multiplex telegraph. In the fall of 1875, in a little inland city of Ohio, I heard three messages sent over the same wire simultaneously, and was assured by the inventor that he had sent as many as fourteen at once. Knowing the principle of multiplex transmission, it would seem quite easy to transmit an almost limitless number at the same time.

The inventor, Elisha Gray, lived in Chicago, but was an Ohio boy, which shows that politics do not receive all of Ohio's talent ; and when I saw him first, he had but recently returned from London, where he had exhibited his discovery before the Royal Philosophical Society, receiving high testimonials from Prof. Tyndall and other members. He had, however, at that time received one hundred thousand dollars for a third interest in his patent, which covers an invention which must be considered the parent of the multiplex telegraph, the telephone, and all allied instruments. If desired, I will at some future time write an article for your columns, detailing the working principles of the machine.

M. E. TEMPLE.

NEWS RECORD.

Foreign and Domestic.

The United States Congress has passed the Pension Appropriation bill, and the River and Harbor Appropriation bill.

Mrs. Abraham Lincoln died at Springfield, Ill., aged 61 years.

The entire business portion of Colfax, Wyoming Territory, has been burned, 58 buildings in all being destroyed. The loss of property will reach \$250,000.

Bishop Scott, of the Methodist Church, died at his home near Odessa, Del., Thursday, the 13th inst., aged 80 years.

The Connecticut Supreme Court of Errors has decided, in a test case, that women are eligible to admission as attorneys in that State, and that sex is no bar.

After Admiral Seymour had sent the English ultimatum to the Egyptian authorities at Alexandria, demanding the immediate cessation of labor on the earthworks overlooking the British fleet, the commander of the garrison replied that the report regarding the hostile work on the fortifications was untrue, and that nothing of the kind would be undertaken. Later a naval reconnoitering party reported the mounting of heavy guns by the Egyptians, on the western side of the entrance to the harbor. This was declared a breach of faith on the part of the authorities, and preparations for an attack on the forts were at once begun by the English fleet. Admiral Seymour demanded the surrender of the fortifications at Alexandria within thirty-six hours, threatening, in the event of refusal, to bombard the city. A refusal was followed by a bombardment, which resulted, as was inevitable, in a triumph for the British fleet. Further action was rendered unnecessary by the evacuation of the forts and the city by the Egyptians. The scenes of carnage in the streets are reported to have been appalling, hundreds of Europeans and Christians having been massacred. Comparative quiet now reigns.

Central Iowa was the scene of a terribly destructive tornado in July. It swept a path of desolation through the country from a point near Des Moines eastward, varying forty feet to half a mile in width, for a distance of fifteen miles. The worst suffering community is Grinnell, where 143 houses and the buildings of Iowa College were demolished, forty-one persons killed, many injured, some of whom will die. At Malcolm eight lives were reported lost, and many at Dresden and other points. A similar storm struck Eastern Kansas and Western Missouri, doing great damage, and attended with some loss of life, the saddest of which

was the death of four young lady students of St. Mary's Academy, who were crushed by the falling of a portion of the school building. At Kansas City the extent of the losses is estimated at \$150,000, and at Leavenworth \$200,000. The total loss of property in Iowa is estimated at over a million of dollars, and the total loss of life at over 100.

The Khedive has dismissed Arabi Pasha from the ministry of war. It is reported, however, that Arabi Pasha is preparing for a forward movement, and also that he is still issuing orders and making appointments in the name of the Khedive. It is likewise said that he threatens to cut the Mahmoudieh canal which supplies the city with water. At Cairo a holy war has been proclaimed, and the European residents are leaving the city. Anarchy prevails in the provinces, and it is reported that eighty Europeans have been massacred at Manta.

All hope of foreign intervention between Chili and Peru has been abandoned, and Tarapaca is to be annexed to Chili. The truce between Chili and Bolivia has not yet been arranged, and the revolution in Ecuador continues, the revolutionists having captured the city of Ambrato.

The Irish Arrears of Rent bill has passed through committee in the House of Commons. Thirteen counties in Ireland have been "proclaimed" under the repression act.

General Skobelev, the famous commander, died suddenly of heart disease at Moscow, recently.

It is maintained in Russian court circles that the coronation of the Czar will take place in September next.

Secretary Chandler has telegraphed Chief Engineer Melville, at Irkutsk, that he and his party, which includes Noros and Ninderman, may come home at their earliest convenience.

Advices from Arizona state that the Indians are again on the warpath.

Returns from Iowa give a majority for the prohibitory amendment to the constitution of 20,000.

There was a reduction of \$12,560,696 in the public debt during the month of June.

By an accident on the Long Branch railroad at Parker's Creek, N. J., Thursday morning, three persons were killed, four or five badly wounded, and nearly eighty slightly injured.

The Right Hon. John Bright has resigned his position in the Cabinet, not being in accord with his colleagues on the Egyptian war question.

Twenty-five Irish members of the House of Commons were suspended from that body on Saturday, for persistently obstructing the passage of the Irish repression bill.

The Bombay Government has received instructions to be prepared for the shipping of an Indian expedition to Egypt.

In Russia the authorities have discovered a list of the persons who contributed to the Nihilist funds, the names of the members of the central managing committee and its branches throughout Russia, and a list of all who have joined the party since 1872.

Educational.

The fifty-third consecutive annual meeting of the American Institute, and the twenty-first annual meeting of the National Association, were held conjointly at Saratoga, July 11-14. During the sessions of either body, the members of the other association were considered as invited guests, entitled to all the rights and privileges of the body in session, except the right to vote. The American Institute held its sessions on the 11th and 13th, and the National Association on the 12th and 14th inst, with a joint meeting on Friday evening, the 14th inst. Nineteen States were represented.

The annual address of the President of the American Institute of Instruction, W. A. Mowry, was "What schools will do for the people." The President of the National Association, Hon. G. J. Orr, LL. D., of Georgia, delivered the annual address before that body. It was an able oration, specially notable for its broad, non-partizan spirit. It is impossible here to note the names even of the eminent educators, or of the subjects of their addresses.

Among the best known in this State, are Hon. John W. Dickinson, Principal John Tetlow, of Boston Girls' Latin School; John B. Gough, the great Temperance Lecturer; Superintendent F. W. Parker, Superintendent A. P. Marble, Dr. Larkin Dunton, Professor J. Stanley Hall, all of Massachusetts; Hon. J. P. Slade of Illinois; President E. E. White, and Superintendent J. M. Bloss of Indiana; Dr. Hoose of New York; Dr. J. L. Pickard of Iowa; Dr. W. T. Harris; Henry Barnard and Charles Northend, and a host of others, almost equally great in the educational field.

The report of a "Committee on Industrial Education," of which President E. E. White, of Purdue University, Indiana, was chairman, is so clear and logical that we copy it entire. It covers the whole subject, and is at once a complete answer to the don't-know-what-they-themselves-want ravings of our newspaper critics, who never

wearied in crying for more practical work in our schools:

"Your committee begs leave to submit for its report a brief statement of the general principles which seem to underlie the question under consideration.

"1. The State has a right to teach any branch of knowledge that will promote the public welfare, but the right of the State to teach any branch does not necessarily make such instruction its duty. The obligation of the State to teach is conditioned by its ability, and also by the necessities of the case. When needed instruction is or will be efficiently given by other agencies, the State may or may not provide it, such provision being then simply a question of expediency. The State's duty is met when necessary instruction is efficiently given.

"2. The primary and imperative duty of the public school is to provide instruction and training of general application and utility. It is a common school—a school designed to provide an education open to all youth, and useful to all—an education that prepares youth as a class to be, to do, and to enjoy the most possible in life. No knowledge or training which is not in harmony with this primary function has a true place in the public school. Whatever is taught must be an element of general education.

"3. It follows from the above statements that the public school may properly teach all those elements of technical knowledge which may be made an efficient means of general training, and this includes the training of the eye and hand as well as the more direct culture of the mind and the heart. It also follows that it is not the duty of the public school to teach special trades or pursuits, or to provide technical training which has only a special application. It has done its part in preparing youth for special pursuits when it has provided an efficient general preparation for all pursuits.

"4. The public school, as above defined, exhausts neither the right nor the duty of the State in education. It may encourage or support higher institutions of a literary, scientific, or industrial character. It may establish schools to meet the educational and industrial needs of unfortunate youth, as the blind, the deaf and dumb, etc.; and it may encourage or promote important industrial interests. It is difficult to state a limiting principle. It may suffice to say that the State should do nothing in special education, as a permanent policy, which experience clearly shows will be efficiently provided by private enterprise."

Sensible action has recently been taken by the Cincinnati Board of Education in cutting off useless expenditures, without reduction of teachers' salaries; the partial abolition of special teachers; and the cutting down of its overgrown system of German teaching. By these means, \$85,000 are annually saved. How the efficiency of

her schools might have been increased, had these \$85,000 been added to the salaries of the disgracefully underpaid female teachers!

An act, to be denounced as utterly indefensible, and as certain to paralyze the growing strength of her educational system, is the dismissal by the Board of Education, Cleveland, Ohio, of Superintendent A. J. Rickoff. For ten or twelve years, under Superintendent Rickoff, the schools of Cleveland have been models of what our system of free popular education can do for our youth. With his wife, Mrs. Rebecca D. Rickoff, in the primary department, the system was symmetrically developed and managed.

Though Mr. Rickoff's successor, President Hinsdale of Hiram College, and author of the recent interesting and pleasant volume "Garfield and Education," is a scholarly gentleman, he has not that acquaintance with our public schools which would encourage us to expect that his administration could be pleasant to himself or propitable to the schools. We hope, however, for the best.

Mr. Rickoff has not for a day been idle. Yonkers, New York, immediately offered him the superintendency, at \$4,300 a year. New York has certainly made a great gain.

Paul Tulane, of Princeton, N. J., has given two millions of dollars for the purpose of endowing a college for the education of the white young men of New Orleans in languages, literature, science, and art. A number of prominent gentlemen, among whom are General Gibson, of Louisiana, have become a corporate body in order to accept this trust. This is the second gift in behalf of Southern education which has been made within a short time. Mr. Tulane says that the object of limiting it to white persons is not to create distinction, but to prevent litigation. Mr. Tulane is a Northern man.

R. W. Stevenson has been re-elected superintendent of the Columbus schools for the term of two years. Mr. Stevenson has filled the position for the past ten years. The *Dispatch* speaks in very complimentary terms of Mr. Stevenson and his work.

Supt. W. S. Eversole has been re-elected at Wooster, Ohio, for two years. Wooster has heretofore elected her superintendent for one year; but an attempt on the part of a college professor to secure Mr. Eversole's position resulted in his unanimous re-election for two years.

Supt. Eversole has been well known in the JOURNAL office since the issue of almost the first number. His subscription was among the first sent in, and it has been kept up ever since. No credit is due the teacher who takes merely his own educational journal; every one worthy the name or emoluments does that. But those show mental

culture and conscientious devotion to duty who, like Supt. Eversole, keep abreast with the educational development of other lands and other days.

It seems that the Vassars are not yet through giving. John Guy Vassar, nephew of the founder of Vassar College, will give the college \$50,000 for a specific purpose, providing a like sum can be raised from other sources. He and his brother will also build at Poughkeepsie a home for aged men, at a cost of \$75,000, and will also soon begin a hospital which will cost \$300,000. He will also build another public institution at a cost of \$30,000 for scientific purposes.

The danger now seems imminent that the bills for National Aid to Education, in Congress, will fail, from inability to get a hearing before the summer adjournment. So far, the American people are not aware of the most alarming feature in the civilization of the republic—the terrible ignorance of one-third the inhabitants of this Union—either spread over the rural districts, as in the South and in the Territories, or massed in great cities, as in the North.—*Wis. Journal of Education.*

According to a recent report of the French minister of public instruction to the president of the Republic, the total amount spent in France since June 1st, 1878, for new school buildings and the improvement of old ones is 207,830,969 francs. Of this amount the state contributed 74,457,806 francs, the departments 6,961,736 francs, the communes 126,411,427 francs; total 207,830,969 francs, or say \$41,566,194. The obligatory education law will require the erection of new schools in almost every department of France. An additional sum of \$25,000,000 will hardly suffice to accommodate all children of school age.

Williston Seminary is enriched to the amount of \$200,000, and Amherst College \$100,000, by the sale of the Williston Mills at Easthampton, Mass.

Texas has sixteen normal institutes this summer, and the legislature has appropriated \$4,000 to cover expenses. The cause of education in the Lone Star State is upward and progressive.

Mr. W. S. Ladd, a banker in Portland, Oregon, has given the State \$20,000 for the erection of a reform school, and will pay all the expenses of maintaining it.

The Vermont *Watchman* calls attention to the inferiority of schools in that State, compared with the schools in the Western States. It advises any man with a family of children to go to Michigan, where the school system is throbbing with vitality. In reply to the excuse of Vermont farmers, that they are in debt and cannot stand increased taxation, the *Watchman* says: "A good education for our children is the

straightest way out of debt."—*Wis. Journal of Education.*

Professor O. V. Tousley, recently appointed as consul to Trieste, has been re-elected superintendent of public schools in Minneapolis, and granted a leave of absence for one year without pay. The duties of the superintendent will be performed by Prof. H. L. Moore, the recently elected assistant superintendent, at a salary of \$1,500. The teachers of the Minneapolis school have asked for, and received, a little more than 9 per cent. increase in salaries.

Personal.

Two sons of Garibaldi's daughter Theresita, wife of General Canzio, are named respectively Ahraham Lincoln and John Brown.

Those who personally knew Daniel Webster and Stephen A. Douglas knew also that, although politically antagonistic to each other, they were very warm personal friends. An instance of this friendship is thus related by Mr. George C. Bates in a letter to John Wentworth: "Soon after California was admitted, I was in the State Department with Fletcher Webster, Charlie March, and Secretary of State Webster, when the latter said to me, in his cheerful yet godlike manner: 'Young gentleman, you know Senator Douglas well, my son tells me.' 'Yes, sir,' I replied, 'better than any living man. He was my schoolmate, my friend, and will do for me anything that I will ask him.' 'Well,' said he, hesitating and blushing almost, President Fillmore has sent in all the Federal appointments for California, and my friends are disappointed. They are not properly cared for. I should like to have action on these nominations suspended until we can see and right them.' 'Very well,' I replied, 'I will see Douglas, and your wish shall be gratified.' That evening about eleven o'clock, I went to Douglas's room, found him just going to bed, told him Webster's wishes, got a carriage by his orders, and went with him to see Dr. Gwinn, then United States Senator from California. Douglas told him our wishes, and the doctor, a wonderful man then and now, took all the California appointments into his own hands, suspended them all for weeks, compelled Fillmore to change and recall some, and alter others, and the Secretary of State and his friends were all well satisfied. While Douglas was true to his own party, he was true always to his friends; was a most manly, noble, and great-hearted man, whose fidelity to our country, our Union, and our nation never faltered or wavered."

—*Harper's Weekly.*

General Grant was one of the passengers on the train from New York to Long

Branch, on the 29th ult., which met with the disastrous accident, and his conduct on the occasion was quite characteristic. Fortunately he was not hurt. The fireman of the locomotive, seeing that the General had lost his hat, offered the one he wore. This he declined, remarking, "As long as my head is left, I guess I can get along without a hat." The General lost no time in lending assistance to the people imprisoned in the cars; in fact, took charge of the rescuing party, directing them how to place planks across from the bridge to the top of the cars. During all the time he was cool and collected. A friend of Colonel Fred Grant expressing some surprise at the Colonel's confidence that no harm had come to his father, he said: "O, my father comes through all sorts of things. In the early times of the war my mother used to be very uneasy about him, fearing he would be killed or wounded in some battle. But after a year or two she got over that, and her only anxiety was then to know whether he had got beaten or won the day."—*Weekly.*

Miss Frances Power Cobbe some time since presented to Girton College, the leading college for women in England, all the mathematical books used by Mary Somerville.

Mrs. Lelia J. Robinson, who is a graduate of Boston University, is the first female lawyer in Massachusetts.

The president of Wellesley College is Miss Alice E. Freeman. The University of Michigan has just conferred upon her its highest degree, that of Ph. D. Hanover College, of Madison, Indiana, has made Maria Mitchell an LL. D., the first time the distinction has been accorded to a woman.

Sixty million dollars represents the dowry of Mlle. Lucy de Rothschild.

They say that whether a good, bad, or indifferent actress, Mrs. Langtry will make a fortune before the question is settled. Her check for seven performances at Liverpool last month was five thousand dollars.

The Princess of Wales does more to keep royalty and privilege in good odor than all the other royal people in Europe. At Eton recently she shook hands with Mrs. Bancroft, the actress, and sent a thrill through the pillars of the throne by doing so.

Louis Figuer is about to undertake the education of the masses by means of the theater, with scientific and historical drama.

Professor Huxley, in distributing the prizes at the London School of Medicine for Women lately, said that the experiment of female medical education has shown that there are hundreds of women who have the capacity and power to do the work of medical practitioners as well as their brothers.

Professor Max Muller used to say that Mr. Emerson was neither American nor English in his characteristics, but Greek, and should have lived centuries since.

The Vermont Howards seem to know no end in well-doing. Miss Louisa Howard, of Burlington, has just given to the University of Vermont \$5,000 for the establishment of five scholarships to be known by her name.

Miss Helen Gladstone has become the Vice-Principal of Newnham College.

Major Henry Clay McDowell, who married Henry Clay's granddaughter, has lately come into possession of Ashland, the statesman's home, which fifteen years ago some gentlemen of Lexington, Kentucky, bought for an agricultural college that eventually fell through.

Besides her dowry in the millions, Miss Zoe Lucy Betsy Rothschild has a diploma certifying her ability to teach, in case misfortune should overtake her. Faure, the baritone, sang during the wedding ceremony.

EDUCATIONAL INTELLIGENCE.

SAN FRANCISCO COUNTY.—Why is it that every board of education in this city except the Mann-Leggett Board is so outrageously "cranky" in the first year of its administration? If the so-called reforms instituted are real reforms, why are they generally consigned to oblivion in the second year? The present board started out well; but already they are in the toils of the score or two of interested teachers, who make it a study and a success to ingratiate themselves with directors, and thus shape the legislation of the school department. This always has been, and now more than ever, is the curse of the San Francisco schools. Directors and Superintendents are elected who know little or nothing of the real needs of the department. These miscalled teachers easily get into their confidence, and become all-powerful. They advance themselves and their friends in position. They even create unnecessary positions. Their salaries are very rarely touched; and if they are, they suffer less in proportion than other teachers. The influence of one such teacher is oftentimes sufficient to defeat a reformatory measure, because such legislation would affect the entire class to which she belongs.

To this kind of influence the present board seems now yielding, thereby strengthening wrongs that must some time or other surely be righted.

Some stupid, or worse than stupid, things done or attempted by the board we shall name.

The normal department of the Girls' High School has been cut down from three classes to two. This has not only thrown out many girls who would probably make good teachers, but tended to discourage those who remain. The argument employed to effect this reduction was that there are already too many teachers seeking employment. The board cannot easily be more wrong; there are not *teachers* enough.

Another ill-judged thing, and condemned by the daily press, notably the *Evening Bulletin*, is the attempt to put a ban on marriage by forcing female teachers who marry to resign from the department. The *Bulletin* very incisively shows that it is no business of the board whether teachers are rich or poor, single or married, as long as they are morally, mentally, and professionally of the proper standard. In this anti-marriage agitation, the board simply imitates its immediate predecessor in one of its worst phases.

Some of the transfers made by the board at a recent meeting are of doubtful utility. Thus the transfer of W. W. Stone to the Washington School, and Mr. Lambert to the Lincoln, were both ill-considered and mischievous. Mr. Stone, from all we can learn, has done good work at the Potrero and is liked by his patrons, who have sent in a petition asking for his reinstatement.

This constant turmoil in our boards of education; the unwise things they do; the necessary things left undone—all these

convince us of the wisdom of abolishing the whole board. Five commissioners or inspectors (as provided in the last charter), appointed in some non-partisan manner, headed by a superintendent—all practical teachers—should have the entire conduct of educational matters in San Francisco.

The amount allowed the San Francisco schools for the year 1882-83 is \$750,000; with a balance on hand, about \$800,000 are now available.

Director W. B. Ewer has been appointed the commissioner to represent California at the great Mineral Exposition at Denver.

The Mechanics' Institute Fair will open for the season of 1882 at their new building on Larkin street, corner of Hayes, on Tuesday, August 15th. As one of the greatest educational means on our coast, this Fair is worthy of extended note in our journal, and should attract the attention of and be visited by all good teachers.

The new building, erected this year, is a permanent structure. It covers an area rather less than the former unsightly building on Market street, but is so well arranged that a better display than ever before may be afforded.

The exhibition this year, in point of completeness, will surpass any of its predecessors. Many new articles of beauty and utility will be shown, and the Art Gallery will be especially crowded.

The fair will certainly be a good place for teachers; not for a half-hour only, but to come again and again, and spend days.

The schools opened for the year 1882-83 with unusually large classes. The number in daily attendance will now probably exceed 32,000.

On account of the large attendance, the board has rented about ten new classrooms, and is building additions to three or four of its school-houses.

The only candidate thus far generally named in connection with the city superintendency on the Democratic ticket is Joseph O'Connor, principal of the Washington Grammar School. Mr. O'Connor is one of the ablest educators on the coast. A thorough scholar and a popular teacher, he is also broad and progressive in his views. Although a Democrat, in educa-

tion he is no partisan. Should he be nominated and elected, the educational interests of San Francisco will be more than safe in his hands; the schools will progress and take a higher rank than their most sincere friends have claimed for them the past three years.

The schools of San Francisco and vicinity have been favored (favored here is not too strong a word) by a visit from Mr. S. C. Stone, master of the Sherwin School of Boston, who has spent his summer vacation with his brothers, F. P. Stone and N. L. Stone, of A. L. Bancroft & Co., of this city.

In company with F. P. Stone and his nephew, the genial and popular F. G. Sanborn, he visited Yosemite, Santa Cruz, and other noted places in the State, and also the principal schools of San Francisco and Oakland. Mr. Stone speaks warmly for many things in our educational system; much he finds to commend; on the other hand, much may be improved. He declares that he goes back to Boston with many new ideas—some that may bear fruit in "the Hub."

A pleasant feature of his visit, especially to those who had the pleasure of meeting him, was a reception given by F. P. Stone and Fred G. Sanborn, at their residence, to which were invited the most prominent educational people of the State. Among others there were present John Sweet, Joseph O'Connor, F. A. Blackburn, J. B. McChesney, A. L. Mann, James Denman, Elisha Brooks, Ira G. Hoitt, and Albert Lyser. Letters of regret were received from State Superintendent Campbell, President Reid, Superintendent J. C. Gilson, S. A. White, and others. Of course "a feast of reason and a flow of soul" marked the occasion; not to forget an elegant collation provided by the hospitality of Mrs. Stone.

Mr. S. C. Stone we found, from his bearing and speech, evidently a model master. If his impression of our California teachers is half as high as the opinions expressed of him, then "a mutual admiration society" cannot but be the immediate result. With them all we say, "*Auf Wiedersehen.*"

An examination for teachers' certificates was held a few weeks ago in this city.

Eighty-four candidates presented themselves, nearly half of whom fell below the required percentage in arithmetic and spelling on the first day, and were consequently dropped. Fewer certificates (especially first-grades) were granted than for many years before. This we understand is because few normal pupils from Mr. Swett's school applied this year. These pupils, so the examiners say, always take a high rank, and are uniformly successful.

The Teachers' Institute met August 9th, in the Girls' High School, Superintendent Taylor in the chair. Principal Swett delivered a short address on the topic of reading as taught in the grammar schools. The junior class of the Girls' High School and the junior class of the Boys' High School were then called into the class-room and briefly examined upon their proficiency in reading by Superintendent Taylor and Principal Swett. Selections in prose and poetry from Hawthorne, Cooper, Longfellow, Bryant, Whittier, etc., upon which the classes had not had any previous drilling, were read by the pupils in a style which gave an average degree of satisfaction. A few of the pupils read with excellent emphasis, and in a way which showed that they had a clear and correct comprehension of the ideas as well as the words of the authors from which they were reading.

The subject for discussion selected for the next session of the institute is "Business Arithmetic;" and "The Waste of Time in School Hours" is to be the topic at the next gathering of principals.

LOS ANGELES COUNTY.—Los Angeles high school graduated a class of twenty-three June 29.

Prof. J. M. Guinn has been re-elected city superintendent of Los Angeles schools.

C. W. Moores, principal of the Anaheim school, and W. P. McDonald, of Downey, are candidates for county superintendent on the Democratic ticket.

Prof. J. W. Hinton, present incumbent, will be the nominee on the Republican ticket. He has been a faithful and efficient officer.

Prof. Lyman D. Smith has been elected principal of the Los Angeles high school.

A class of five graduated from the grammar department of the Santa Ana school.

These are the first grammar school graduates in the county. The county board prepared the questions and examined the papers of the class. The subjects examined in were spelling, grammar, geography, word analysis, history of the United States, arithmetic, algebra, physics, physiology, English and American literature, and natural history. A standing of eighty per cent. was required.

Los Angeles city schools now employ forty-three teachers. The rapid growth of the city has necessitated the employment of eight more than last year.

To show the rapid growth of the Los Angeles schools, we make the following extract from a letter to us from Supt. Guinn:

"Our city is growing very rapidly. We are building three new school-houses, and still we shall be crowded for room. We have rented seven rooms in the new Normal Building. We transfer our high school to the Normal Building, and put in it three primary classes."

ALAMEDA COUNTY.—We notice that our old friend Harry Lynch opened the school at Newark on the 24th ult. There is talk of having another department.

County Superintendent of Schools Fuller has prepared his annual report for presentation to the board of supervisors. In it he says the schools of the county are mostly in the hands of good and efficient teachers, who are doing excellent work. The total expenditures for the year for all purposes were \$263,939.41, divided as follows: Teachers' salaries, \$212,082.07; repairs, fuel, etc., \$43,255.52; paid for school library, \$968.57; for sites, buildings, and furniture, \$5,838.65. The total receipts were \$353,971.04.

There are 100 grammar schools, 144 primary schools, and 3 high schools; 77 school-houses all found; 46 male teachers and 200 female teachers. There are 48 school districts in the county, 45 of which maintain school for eight months. The minimum estimated as necessary for the present year is \$48,855. In the county there are 1,523 children attending private schools, on whom no apportionment of State money can be drawn.

Mr. A. S. Craven, formerly principal of

the Alameda High School, has been elected principal of the Durant Grammar School of Oakland, *vice* Mr. Brodt, removed. This is an excellent appointment, as Mr. Craven is a fine scholar and a highly successful teacher.

School matters in Alameda County are in an excellent condition. The credit here is largely due the late superintendent, J. C. Gilson, who now holds the same position in Oakland. Among the teachers who continue in their positions are Prof. W. W. Anderson, whose management of the Berkeley High School has crowded that institution, and greatly increased its efficiency; Prof. Keep, of the Alameda High School; ex-Supt. W. F. B. Lynch, in the Alviso district; P. L. Fisher, an intelligent and ambitious young teacher at Washington Corners. Among the changes are Mr. Horton to the Alameda High School, and Mr. Bush to Harrisburg.

SONOMA COUNTY.—The teachers employed last year have been re-employed for the present year in Petaluma, Healdsburg, Cloverdale, Sonoma, Forestville, and Windsor. The old corps has been retained in Santa Rosa, with the exception of E. T. Crane, who has resigned, and accepted the principalship of the Colusa High School. H. E. Footman returns to Bodega Corners, and J. H. Burnett to Bloomfield. Mrs. J. W. Casseres has been elected assistant at Bodega Corners, and Mrs. J. H. Burnett at Bloomfield. T. P. Powers, late of Centerville, has been elected principal at Geyserville. Mrs. Burns has been elected principal of the Guerneville school. Prof. G. W. Jones and wife retain their position in Sebastopol, and are building up an excellent school. The schools of the county were never more efficient than now. There are five private schools in Santa Rosa, two in Healdsburg, two in Petaluma, three in Sonoma; and yet the public schools in these places are all full. The trustees at Cloverdale are building an additional school-room, and will employ five teachers this year. The census returns show an increase over last year of 128.

C. S. Smyth has been renominated for superintendent of schools. Prof. Smyth has made an excellent superintendent; he is a scholarly gentleman, and from a long and suc-

cessful practice in the school-room, knows what good teaching is. We hope and believe that his re-election is assured.

Santa Rosa Republican says that the city school board, after settlement for past term, have a surplus of \$1,000 to apply on indebtedness, and that in two years they will be out of debt. They have retained the old teachers as a rule. Mrs. Matthews is to go into the West School, and Mr. Crane is going to Colusa.

The Healdsburg public schools opened on July 24th.

BUTTE COUNTY.—Co. Supt. Jesse Wood, and F. A. Peachy, principal of Oroville schools, are both candidates for the office of county clerk. We have heard of no candidates for school superintendent as yet. The mountain schools of the county are all in session now, and furnish employment for many of our teachers. W. E. Cressy is teaching his second term at Butte Meadows, and is well liked. Miss Mollie Phillips is again at Forest Ranch, Miss Blake at Keefer's Mills, Miss Eva Hasty at Lovelock, Miss Maggie Lynch at Nimshev, and C. A. Woodman at Big Meadows. The trustees of Chico schools have elected the following corps of teachers for the coming term: H. T. Batchelder, principal, C. A. Woodman, R. H. Dunn, Mrs. L. L. Sproul, Mrs. E. A. Warren, Misses Emma Perry, Emma Wilson, Louise Hibbard, Kate Conger, and Clara Daly, assistants. The only changes made are in the 1st and 3rd Primary Dep'ts, Misses Hibbard and Daly taking the place of Misses Whiteside and Cushman. Miss Daly has been a successful teacher in Butte county for the past five years, and we have no doubt will prove a success in her new position.

MONTEREY COUNTY.—Santa Rita School was visited by Superintendent S. M. Shearer May 19th. M. J. Smeltzer, teacher; number of pupils enrolled, 46; daily average attendance, 31; wages of teacher, \$100 per month. The school is in a flourishing condition; new school-house, well-selected library, etc.

Natividad School has an average daily attendance of 17. J. T. Shanklin is the teacher. In 1874 the average attendance was 60; and owing to the large census

roll, the salary for many years ranged from \$100 to \$85 per month.

Washington and Corral de Tierra Schools were visited. The former is taught by Miss Sadie R. McLaughlin, at a salary of \$80 per month. It enrolls 30 pupils; attendance, 26. The latter is taught by Miss Kittie Sullivan, at a salary of \$60 per month; has 15 enrolled pupils; attendance, 14.

Guadalupe School is taught by Miss S. Henrietta Dorn; enrolls 19 pupils, with attendance 13.

The Gonzales School has an excellent teacher in Mr. Andrea Norton, a man of first-class attainments, having stood 92 per cent. in examination for a first-grade certificate.

Salinas City public schools opened on July 10th, with 380 pupils, and all departments full; more room is needed, as also one more teacher at once. The plans and specifications are paid for, and in the hands of the city board. They propose to add four rooms to the East End school building.

SHASTA COUNTY.—On Friday, July 28th, the first term of the Redding Normal Institute closed its final summer session. We have already in our July number spoken of the excellent work done by this school, and the credit due its enterprising principal, Prof. H. R. Wiley. A correspondent writing from there mentions the fact that State Superintendent Campbell delivered the last of a course of evening lectures before the institute. There was a good attendance not only of Redding people, but many also from the town of Shasta. Among these were Clay W. Taylor and wife. Mr. Taylor said he had to come over to hear his old preceptor once more, and expressed himself as much better pleased with the lecture than he used to be with some more privately, but quite as forcibly, delivered to him when he was a student under Prof. Campbell in the old college school at Oakland.

Our correspondent, who happens to be a strong Republican, asks why Mr. Campbell did not train his pupils more nearly in the way they should go, for there are two of

his students on the Democratic State ticket—John Glascock for Congress, and H. J. Willey for Surveyor-General; and two more came near being—L. D. Freer for Congress, and Clay W. Taylor for Governor. We give it up; ask Campbell.

NEVADA COUNTY.—At the last meeting of the Board of Education of Grass Valley, M. P. Stone was elected superintendent of schools; G. F. Horton elected principal of high school, *vice* P. T. Riley, resigned. H. J. Baldwin was appointed as teacher in the First Grammar School in place of M. P. Stone. W. R. Bird has been retained in the Church Hill Grammar School, where he has given satisfaction for such length of time. There were twenty teachers in all appointed, and their salaries will amount to between \$1,400 and \$1,500 per month. John T. Wickes is announced in Grass Valley *Union* as candidate for re-election as county superintendent for the coming term on the Democratic ticket. He is an excellent man for the place.

MONO COUNTY.—From Bodie we learn that Miss C. H. Pitcher has resigned her position in the school there, and returned to her home in Sacramento. The cause was a desire on the part of the trustees to have a male teacher.

WASHINGTON TERRITORY.—From Vancouver we hear they are having a new school building erected for that district, and that it will be ready for occupancy September 1st, and will be under the charge of Major T. C. Bell and wife.

SANTA CLARA COUNTY.—Some important changes have taken place in the San Jose schools. Space in this number of the JOURNAL will not permit comment; but in an early number of the JOURNAL we shall speak thereon at length. The changes are James G. Kennedy from the principalship of the high school to the city superintendency, *vice* Prof. A. W. Oliver; Prof. T. E. Kennedy, assistant in the high school, to the principalship.

SAN JOAQUIN COUNTY.—Mrs. Ives and Miss Nettie Ives are engaged to teach the Galt School.

EXAMINATION QUESTIONS.

COMPOSITION (ALAMEDA COUNTY).

I. Give four uses of the comma; two of the semicolon; two of the period; one of the dash; two of the hyphen; and one of the marks of parenthesis.

II. Correct the following lines, using capitals where needed, and appropriate marks of punctuation:
on with the dance let joy be unconfined
no sleep till morn when youth and pleasure
meet

to chase the glowing hours with flying feet
but hush hark that heavy sound breaks in
once more

III. What is criticism? What are the cardinal qualities of a good style? Name two writers possessing energy of style.

IV. Define Simile, Metaphor, Metonymy, and Synecdoche. Name the figure used in each of the following sentences:

The pen is mightier than the *sword*.

He stood a *pillar* among his fellows.

The air *bites* shrewdly.

He doth *bestride* the narrow world *like a Colossus*.

Our chains are forged.

V. Write a composition on any of the following subjects: (1) Around Cape Horn; (2) Across the Continent; (3) Bunker Hill; (4) What are Books good for; (5) Newspaper Literature.

THEORY AND PRACTICE (ALAMEDA COUNTY).

I. What do you understand by "the organization of a school"? State what advantages result from a thorough organization. What do you understand by "school management"?

II. What is "order in school"? How can it be secured, and to what extent should it be enforced? To what extent has the teacher authority to prescribe and enforce rules in the school-room?

III. State the object of school punishment. Name the punishments allowable in school. What should always be the result?

IV. What are the chief objects of reci-

tations, and in what way can the greatest benefits be derived from *class* recitations? What errors in methods of conducting recitations should be avoided?

V. In what way would you prevent whispering? How would you prevent inattention and listlessness during recitations? What remedy for tardiness? What penalty for unlearned lessons?

GRAMMAR (ALAMEDA COUNTY).

I. Name the different kinds of sentence, and give an example of each.

II. Write a sentence, or sentences, illustrating all the uses of the word *what*.

III. Give the third person singular, in the different moods and tenses, of the verbs *sit, set, lie, lay, see, and throw*.

IV. What is an *attribute complement*? An *object complement*? An *objective complement*? Give a complex sentence, modifying the predicate by an adverb clause.

V. What do you understand by the natural order of a sentence? The transposed order? Give an illustration of each; an illustration of a contracted sentence.

VI. Parse the underlined words in the following: "And not her mind? Oh, direst wreck of all! That noble mind? But 'tis some passing seizure. Some powerful movement of a transient nature. It is not madness."

VII. Justify the use of the italicized words in the following sentences, if correct; if wrong, correct them. "Five dollars *is* too much." "Every one *is* accountable for *his* own acts." "There *are* one or two reasons for going." "We hoped *to see* you." "That custom *has been* formerly quite popular."

VIII. Parse the italicized words in the following sentences, and point out clearly the grammatical connection: "He told me he had seen the snow *fall* seventy winters." "He had been made a *great deal* too much *of* by the public."

IX. Correct the following sentences, and give reasons for the corrections: "He raised up, and spoke." "He wore a hat which hurt him." "Much land along

the river was overflowed." "It being wet, did not disturb him." "Solomon was wiser than any of the Hebrew kings."

X. Analyze the following sentence. (A correct diagram will be received as a sufficient analysis.)

This above all, to thine own self be true,
And it must follow, as the night the day,
Thou canst not then be false to any man.

ARITHMETIC (SAN FRANCISCO COUNTY.)

Time, $2\frac{1}{2}$ hours. 10 Questions, 8 Credits each.

1. Reduce to common fractions or mixed numbers: $.25\frac{3}{4}$; $.16\frac{2}{3}$; $22.03\frac{1}{3}$; $12.18\frac{3}{4}$.

Express in decimal form: eighteen thousand and one hundred-millionths; two thousand and nine hundred thousandths; six thousand and six millionths; three and two thousand three hundred and four ten-thousandths.

2. Bought 120 lbs. of tea at 75c.; $16\frac{2}{3}$ per cent. got spoiled; at what per cent. advance on the cost must I sell the remainder so as to gain 20 per cent. on the cost of the whole?

3. A commission merchant sold for me 32 T. $13\frac{3}{4}$ cwt. of copper at $\$533\frac{1}{2}$ a ton, and invested the proceeds in wheat at $\$1.37\frac{1}{2}$ a bushel. If he charges 1 per cent. for selling and 2 per cent. for purchasing, what number of bushels does he buy for me?

4. Bought a bill of goods for \$8,000, and marked them so as to gain 40 per cent. After selling three-fifths of them, three-fourths of the remainder were sold at 20 per cent. discount from the retail price, and the balance was lost by fire; did I gain or lose, and what per cent.?

5. What sum of money will yield as much interest in 2 years at 10 per cent. as \$800 yield in 5 years 3 months at 6 per cent.?

6. Required the contents of the following lot of lumber, and the cost at \$18 per M:

12 boards	$13\frac{1}{2}$	ft. long,	14 in. wide,	2 in. thick.
10 "	22 "	"	12 "	1 "
48 "	15 "	"	10 "	3 "
13 "	12 "	"	16 "	at one end and twelve at the other, 1 in. thick.

7. What is the difference between the area of a square circumscribed about a cir-

cle 18 inches in diameter, and the area of the largest square that can be inscribed in the same circle?

8. If 30 men build a wall 90 feet long, 8 feet high, and 4 feet thick in 16 days of 10 hours each, how many days of 8 hours each will 60 men require to build a wall 120 feet long, 10 feet high, and 3 feet thick?

9. A has a circular garden and B a square one; the distance around each is 64 rods; which contains more land, and how much?

10. When it is noon at San Francisco it is 3 hours 9 minutes 7 seconds P. M. in Philadelphia. What is the longitude of Philadelphia if that of San Francisco is 122 degrees 26 minutes 45 seconds?

SPELLING AND ANALYSIS (SAN FRANCISCO COUNTY).

Time, 1 hour. 70 Credits.

- | | |
|------------------|-------------------|
| 1. Memoir, | 16. Epicycle, |
| 2. Entrepot, | 17. Erysipelas, |
| 3. Tranquillity, | 18. Isosceles, |
| 4. Purlieu, | 19. Epilepsy, |
| 5. Escritoire, | 20. Cosmical, |
| 6. Calliope, | 21. Drummed, |
| 7. Supercilious, | 22. Benefited, |
| 8. Hemorrhoids, | 23. Singeing, |
| 9. Lethean, | 24. Barouche, |
| 10. Plastic, | 25. Cayenne, |
| 11. Calendar, | 26. Parricide, |
| 12. Obsequies, | 27. Prescience, |
| 13. Abstinence, | 28. Surveillance, |
| 14. Succinct, | 29. Profession, |
| 15. Anathema, | 30. Gossiping. |

30 credits.

What does *al* denote when suffixed to a verb? 2 credits.

Give an example where the suffix *ish* implies nationality. 2 credits.

Give an example where *ive* implies a person. 2 credits.

When is final *y* unchanged? Example. 2 credits.

Give the origin and meaning of these words: Gasconade, Attic, Milliner, Epicurean. 2 credits.

Analyze the following words: (1) Manuscript; (2) Cordial; (3) Vagrant; (4) Concurrence; (5) Incision. 10 credits.

Give definitions for the following words:

Ambiguous, Sophistry, Apprehension, Repartee, Malicious. 10 credits.

Give a synonym derived from Greek or Latin of each of the following words: Builder, Cold, Speech, Foretell, Height. 10 credits.

DRAWING (SAN FRANCISCO COUNTY).

Time, 1 hour. 20 Credits.

1. Construct an equilateral triangle of $2\frac{1}{2}$ inch side, find the center of the inscribed circle, and draw within a symmetrical rosette composed of leaves. 10 credits.

2. Draw in parallel perspective a square prism, the top and the left-hand side of the object visible. Locate horizontal line and point of sight.

PHYSICS (SAN FRANCISCO COUNTY).

Time, $1\frac{1}{2}$ hours. 7 Questions. 70 Credits.

1. Why does a straight stick placed obliquely in clear water seem bent? In what direction? 10 credits.

2. (a) Why cannot the common pump raise water higher than about 32 feet? 2 credits.

(b) Draw a vertical section of the common pump showing its different parts. 8 credits.

3. If a thunder clap is heard 10 seconds after the lightning is seen, how far distant is the thunder storm? 10 credits.

4. Explain the principle and use of the thermometer. 10 credits.

5. Describe the different kinds of levers. 10 credits.

6. If the liquid used in a barometer were water instead of mercury, how long should the tube be? 10 credits.

7. Explain the motion of the piston in a steam engine. 10 credits.

GEOGRAPHY (SAN FRANCISCO COUNTY).

Time, $1\frac{1}{4}$ hours. 7 Questions. 70 Credits.

1. Name three rivers that flow into the Arctic Ocean (one of North America and two of Asia); two that flow into the Indian Ocean; three that flow into the Mediterranean Sea; and two that flow into the North Sea. 10 credits.

2. Name the highest peak and the longest river in each of the five grand divisions. 10 credits.

3. What are four of the chief physical characteristics of Europe? 10 credits.

4. What causes ocean currents? (6 credits.) Name four of the principal ocean currents. (4 credits.)

5. Name two of the principal productions of each of the following countries: France, Brazil, China, Australia, California. 10 credits.

6. What are igneous rocks? Isothermal lines? Great circles? Oases? Silvas? 10 credits.

7. Name three characteristic animals of the Frigid Zone, three fruits of the Torrid Zones, and four of the most useful trees of the Temperate Zones. 10 credits.

BOOK NOTICES.

HOW TO TALK; OR, PRIMARY LESSONS IN THE ENGLISH LANGUAGE. Illustrated with over 200 engravings. By W. B. Powell, A. M., Superintendent of Schools, Aurora, Illinois. Philadelphia: Cowperthwait & Co.

We consider it one of the most gratifying signs of the times that so much attention is given, by both teachers and school officers, to the study of language. As we look over the admirably arranged books intended for the purpose of teaching how to

express thought, our minds are involuntarily carried back to the time when we dangled our legs from a high bench, and essayed to learn how "to speak and write the English language correctly" by memorizing abstruse definitions as found in the grammars of that time. Neither do we forget how distasteful the study was; nor the fact that although Susan Maria could parse and repeat every rule without missing a word, still her daily conversation abound-

ed in as many stabs at Lindley Murray as before she had learned to ring the changes on "love."

But a change has come at last, and no one knows better how thankful the youth of the present generation should be for it, than those who have grown too old to reap any of its advantages.

The book before us, by easy and natural gradations, takes the pupil from the consideration of the word in its various forms to the construction of the sentence and the paragraph. The manner in which this is done is admirable. The author seems to have been impressed with the fact, too frequently lost sight of by our teachers, that words and sentences are for the expression of ideas, and that thoughts must precede language. Hence the importance of learning to see and to compare is made a prominent feature of the work. Profusely scattered through the work are well-chosen illustrations, which, by their suggestiveness, will be of great assistance to both teacher and pupil. To say we are pleased with this book does not begin to express our admiration of it. Teachers should have the book on their tables, as it will prove an invaluable aid to them in giving language lessons.

ECLECTIC SHORT-HAND. Writing by Principles instead of Arbitrary Signs. For General Use and Reporting. By J. Geo. Cross, A. M. Chicago: S. C. Griggs & Co. 1882.

According to the author, this is a system of writing by principles or rules without exception, using less than thirty-five word-signs, yet writing more fully and with less strokes than any other. It has grown from actual experience, and is entirely practical. The unfolding of the general scheme is methodical, and the instructions for the learner clear and explicit, so that a novice will have no difficulty in making headway in learning this desirable art. In this age of telegraphs and rapid communication, it is more than ever necessary for business men to keep up a correspondence with their agents in different parts of the country. To do this satisfactorily, it is quite essential that rapid methods for putting thoughts on paper should be as common as sending them by lightning. We recom-

mend this book to those who desire to learn to write in short-hand.

LITERARY NOTES.

Harper's for August contains a charmingly illustrated paper on Some Western Resorts. Barnet Philips's Cruise of the Nameless is very amusing. The most interesting of Lathrop's series of Spanish Vistas appears under the heading of Andalusia and the Alhambra.

The Century for August opens with a well-executed engraving of Wagner, the composer. The Borderlands of Surrey enunciates the fact that it will be a score of years before our American country houses will approach the English seats in artistic beauty. Some English Artists and Their Studios gives a series of luxurious interiors. The poetry is of unusual merit.

The Atlantic for August comes up to its usually high mark. Oliver Wendell Holmes contributes a poem, At the Summit. Hardy's Two on a Tower is continued. W. T. Harris furnishes a paper on Emerson. The number closes with a report of the late party given to Mrs. Stowe, in Boston. The frontispiece engraving of Emerson is of great merit.

Lippincott's for August opens with a paper on the Pueblo Indians. Eleanor Putnam contributes a short story, Edged Tools. Closing In is a poem by Paul H. Hayne. The serial Fairy Gold is continued.

In the *North American Review* for August the Rev. Henry Ward Beecher writes of Progress in Religious Thought. T. V. Powderly, the official head of the Knights of Labor, contributes an article on The Organization of Labor. Archibald Forbes writes of The United States Army. The Ethics of Gambling is by O. B. Frothingham.

Our Continent comes to us regularly every week. It is not too much to say that of its kind (and its kind is the very best), it has no superior among the literary weeklies of our day. Its editorials by Judge Tourgee are always well written, timely, and incisive. The stories, serial and short, are by the best writers, and always of a high literary and moral standard. Our readers should all make themselves acquainted with this periodical. They will like it.

Our Educational Exchanges. It will not be amiss to name a few of the educational periodicals of the Union worthy of especial commendation for the uniformly high character of their contents. We believe it the duty of every teacher, properly so called, to take at least one such journal published outside his own State. First and foremost comes the *New England Journal of Education*. It is the standard. Then the *Primary Teacher*. It has no superior; not even a rival. The *Penn. School Journal*, which we are glad to copy, is the best of the monthlies. The *Ohio Educational Monthly*, always good, is now, under Supt. Findley, larger, fresher, more varied than ever.

THE PUPILS' CORNER.

THIS department, which will consist of new, and in many cases original, declamations, poems, dialogues, music, and games, suitable for Friday afternoon exercises, will be under the editorial charge of MRS. ALICE LYSER. Teachers who have matter for the department, or suggestions in regard to it, are solicited to send communications to her address at this office.

SELECT READING.

A BLOSSOM LEGEND.

SIT here beside me, darling, in this pleasant "children's hour,"
While I tell a sweet old legend of a lovely little flower—
A flower that hides its bashful face in wildest, lowliest spot,
And shuns the kisses of the sun—the fair Forget-me-not.

"Tis said that in the Eden-land the blossoms and the birds
Had each a language of their own, and spoke in quaintest words ;
And Eve, her waiting mother-heart on gracious cares intent,
Walked lovingly among them, and named them as she went.

Beside a shaded river a little flower she found,
Lifting its shrinking, blue-eyed face up from the mossy ground ;
She kissed and called it " Bloom of Heaven " ; it answered to her call—
And of Eden's wealth of sweet things she loved it best of all.

Alas ! one day poor sin-bowed Eve, with sorrow-streaming eyes,
Went sadly down her garden walks—banished from Paradise !
The roses blushed and turned aside—when, hark, in accents sweet,
" Forget-me-not " was faintly breathed in whispers at her feet.

"Twas her little " Bloom of Heaven " that spoke ; she caught the tiny spray
And pressed it to her breaking heart to soothe its pain away ;
" 'Forget-me-not,' art thou, my flower ! for thou alone, of all
That I have loved, remember me, nor scorn me for my fall ! "

The steadfast blossom lived for her—it gave her all its bloom ;
It whispered comfort when she died—it grew upon her tomb ;
But when the sad, distressful days of crime and shame were come,
The pretty blossom bowed her head, dismayed and hurt and dumb !

For long, long years her voice was hushed, when, one midsummer day,
Upon the hills of Galilee a child went forth to play ;
The waiting blossom heard His step ; she cried aloud in bliss,
As she felt the loving pressure of the little Christ-child's kiss !

And the legend tells us, darling, that the child whose tender heart
Loves all of earth's sweet mysteries, and claims in each a part,
May on the bright midsummer night, the Queen Night of the year,
Hear all the pretty blossoms tell what I have told you here.

LUCY M. BLINN.

A SHORT STORY.

[To be used as basis for a composition exercise for Primary Grade.]

NEP AND THE BABY.

NEPTUNE lives next door to our house. I mean Nep, Doctor Lane's dog. He is half Saint Bernard, and is eight years old. Some one gave him to the doctor a few months ago, and he soon made himself at home. The butcher comes three times a week with meat, and Nep found out about this in a very few days. When meat-day comes, he trots down to the corner of the road and waits for the butcher. Other days he stays at home.

He is very fond of the doctor's baby, who is two years old. He takes care of him almost as well as a nurse. One day Mrs. Lane was roasting oysters in the kitchen. The baby was playing about the floor, and Nep was looking on. Just for sport, Mrs. Lane snapped the tongs at the baby. Nep sprang up at once, with a deep growl, and showed all his teeth to Mrs. Lane. He seemed to say, " You shall not harm this baby, if he is yours." The baby's mamma feels sure now that her pet is safe when he is in Nep's care.

But the strangest thing is that Nep is fond of picture-books. He will stand up, with his fore feet upon the table, and paw open the leaves of Mother Goose or some other little book. When he finds the picture of a dog, he will wag his tail and say, " Bow-wow ! " Sometimes he pulls the book upon the floor. Then he lies down and turns over the leaves, and he and the baby look at the pictures together. It would make you laugh to see them.

KHAM.

Connecticut.

SCHOOL-ROOM GAMES.

A TRAVELER'S TOUR.

THIS game may be played by any number of persons.

The teacher or one of the class announces himself the traveler, and about to take a tour. He calls upon any of the party for information respecting the objects of the greatest interest to be noticed in the different towns and villages through which he intends passing.

When the traveler announces the name of the place he intends stopping at, the first person is at liberty to give any information or make any remark respecting it ; if he cannot do so, the second person has the chance, or the third, or it passes on until some one is able to speak concerning it. If the traveler considers it correct information, or worthy of notice, he gives the person one of his counters as a pledge of the obligation he is under to him. The next person in order to the one who spoke last is to proceed, so as not each time to begin with number one. If no one of the party speaks, the traveler may consider there is nothing worthy of notice at the place he has announced, and he then passes on to another.

After he has reached his destination, he of the party who has most counters has given him the greatest amount of information, and that person is entitled to be the traveler in the next game.

EXAMPLE OF THE GAME.

Traveler.—I intend to take a little excursion this summer, and shall soon start from New York to Saratoga; but as I wish to stop at several places, I shall travel slowly. My route will be by steamboat up the Hudson to Albany, thence through the center of the State to the Falls.

Number One.—Soon after leaving New York City you come to the Palisades, which form one of the first objects of interest in your route. The noble river is then walled in for thirty miles by high, precipitous rocks, upon whose summits imagination has but to place some ruined castles to suggest olden memories, and the inferiority of the scenery of the vaunted Rhine to that of the Hudson must be confessed.

Traveler.—Thank you for this information; pray deposit a counter, that I may remember to whom I owe it. I propose to stop at Tarrytown.

Numbers Two and Three not answering.

Number Four.—Pray visit the spot of Andre's arrest. After the final arrangements with Arnold in regard to the betrayal of West Point were made, Andre proceeded on horseback to New York, and when he reached this spot, supposed himself to be within the British lines, and thus secure from danger. Here he was stopped by three soldiers, whose names will ever be held in remembrance—Paulding, Williams, and Van Wert. Instead of showing his passport, he inquired whence they came, and received for answer, "From below"; he responded, "So do I," showing at the same time his uniform as a British officer. "We arrest you as an enemy to our country," replied these soldiers; and resisting all his attempts at bribery, they led him a captive to the headquarters of the American general. His sad fate is well known. Hung as a spy near this place, his remains were left here a few years, but are deposited among England's illustrious dead in Westminster Abbey. Number Four gets a counter.

And so on. This specimen is enough to show how the game goes. Not many games are more improving to the mind than this.

GEOGRAPHICAL PUZZLE.

A FOGGY morning of February found Mr.—a city noted for the manufacture of boots and shoes—spending a dismal hour in his room in—the first city in the world in population and commerce—yawning and wishing himself—the width of the Indian Ocean—from that chair.

He was indulging in a fit of the blues in consequence of a disappointment which he had experienced the previous day. He had traveled—a distance of the length of the sea coast of New Hampshire—hoping to obtain a glimpse of—the largest town of British Columbia—and had failed.

Being at liberty to do as he wished in respect to emigrating, and possessing a roving disposition, he prepared himself for departure, and took the next train for—the second city in commerce.

A few days after this he was enjoying a view of—the largest mountain lake in the world—and another day found him toiling up the side of the highest mountain peak in the world—after visiting the most elevated lake in the world—he took a steamer for—the third city in commerce.

Having landed in his native city, he hoped to meet some old friends; but during his long absence nearly all had left the city for the other world, or some distant part of this—however, he succeeded in finding a quondam schoolmate, Miss—the oldest town in Ohio. In reply to the question if her brother was in the vicinity, she said—the largest lake in Ireland—that he had long since removed to—the oldest city in the Union. This gentleman of the migratory disposition could not long content himself in one place. Having rela-

tives in—the city which has the largest flouring mills in the world—and wishing to see the—river in the vicinity noted for its enormous falls—he left for that place early in June.

The next place to which his fancy called him is—a noted watering-place with many mineral springs in the vicinity.

A week from his arrival at this town he was fishing in—the lake noted for its beautiful scenery, three hundred and sixty-five islands, and the clearness of its waters; also for being a part of the route which the New York State Teachers' Association passed over on the excursion of July, 1881, thanks to the generosity of the Dixon Graphite Company.

The latest intelligence received from this erratic masculine was that he was just leaving—the most southern city of the Union for—the most elevated city in the world.

MARIMIE.

In *Teachers' Companion*.

THINGS STUDENTS SHOULD KNOW.

TEN LARGEST CITIES IN THE WORLD.

ACCORDING to Rand, McNally & Co.'s new *Atlas of the World*, which has just been published, the population of the ten largest cities in the world is as follows: London, 4,000,000; Paris, 1,988,806; Soo-choo, 1,500,000; Canton, 1,300,000; Peking, 1,206,599; New York, 1,206,500; Berlin, 1,111,630; King-te-ching, 1,000,000; Philadelphia, 846,979; Chang-chow, 800,000.

OUR MAGNITUDE.

HON. FRANCIS A. WALKER, Superintendent of Census, has just issued an extra Census Bulletin, showing the approximate areas of the United States, the several States, and their counties. The total area of California is placed at 155,980 square miles. The following is the number of square miles in each county:

Alameda.....	660	Mendocino.....	3,780	Santa Barbara.....	2,200
Alpine.....	730	Merced.....	2,280	Santa Clara.....	1,400
Amador.....	540	Modoc.....	4,260	Santa Cruz.....	420
Butte.....	1,720	Mono.....	3,400	Shasta.....	4,000
Calaveras.....	980	Monterey.....	3,520	Sierra.....	880
Colusa.....	2,500	Napa.....	840	Siskiyou.....	5,660
Contra Costa.....	800	Nevada.....	990	Solano.....	940
Del Norte.....	1,540	Placer.....	1,480	Sonoma.....	1,520
El Dorado.....	1,800	Plumas.....	2,760	Stanislaus.....	1,420
Fresno.....	8,000	Sacramento.....	1,000	Sutter.....	580
Humboldt.....	3,750	San Benito.....	990	Tehama.....	3,060
Inyo.....	8,120	San Bernardino.....	23,000	Trinity.....	2,490
Kern.....	8,160	San Diego.....	14,600	Tulare.....	5,610
Lake.....	1,100	San Francisco.....	40	Tuolumne.....	1,980
Lassen.....	5,000	San Joaquin.....	1,360	Ventura.....	1,690
Los Angeles.....	4,750	San Luis Obispo.....	3,460	Yolo.....	940
Marin.....	580	San Mateo.....	440	Yuba.....	700
Mariposa.....	1,560				

The total area of the United States is 3,025,600 square miles, divided as follows among the various States and Territories :

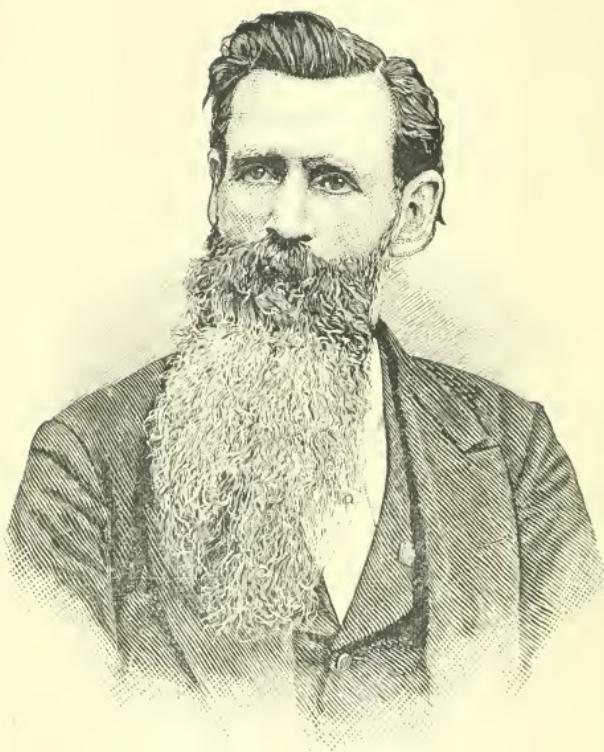
Alabama.....	52,250	Kentucky.....	40,400	Ohio.....	41,060
Arizona.....	113,020	Louisiana.....	48,720	Oregon.....	96,030
Arkansas.....	53,050	Maine.....	33,040	Pennsylvania.....	45,215
California.....	155,980	Maryland.....	12,210	Rhode Island.....	1,250
Colorado.....	103,925	Massachusetts.....	8,315	South Carolina.....	30,570
Connecticut.....	4,990	Michigan.....	58,915	Tennessee.....	42,050
Dakota.....	149,100	Minnesota.....	83,365	Texas.....	265,780
Delaware.....	2,050	Mississippi.....	46,810	Utah.....	84,970
District Columbia..	70	Missouri.....	69,415	Vermont.....	9,565
Florida.....	58,680	Montana.....	146,080	Virginia.....	42,450
Georgia.....	59,475	Nebraska.....	76,855	Washington.....	69,180
Idaho.....	84,800	Nevada.....	110,700	West Virginia.....	24,780
Illinois.....	59,650	New Hampshire....	9,305	Wisconsin.....	56,040
Indiana.....	36,350	New Jersey.....	7,815	Wyoming.....	97,890
Indian Territory...	64,690	New Mexico.....	122,580	Unorganized territory	5,740
Iowa.....	56,025	New York.....	49,170	Delaware Bay.....	620
Kansas.....	82,080	North Carolina.....	52,250		

Of the above area 55,600 square miles is water surface.

GOOD NIGHT.

FRANZ ABT,

1. In the west the sun de-clining, Sinks beneath the mountain height, Tints the clouds with
golden lin-ing, Sets the hills with rubies shining, Then bids all the world good night.
Good night, Good night ! Good night, Good night ! Good night, Good night.



CHARLES H. ALLEN.

THE PACIFIC SCHOOL JOURNAL.

EDITED BY ALBERT LYSER.

ORGAN OF THE

DEPARTMENT OF PUBLIC INSTRUCTION.

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SAN FRANCISCO, SEPTEMBER, 1882.

No. 9.

EDUCATORS OF THE PACIFIC SLOPE.

CHARLES H. ALLEN.

THE pages of history are too frequently filled with the exploits of those who have done some great thing, or succeeded in establishing some new and startling theory till then undreamed of, with no reference whatever to their laborious efforts or the chapter of "happy accidents" that has enabled them to claim the chaplet of renown. The general who has won an important battle; the author who has written a book that has struck the key-note of popular favor; the inventor who has secured a valuable patent;—these are held up to our view as famous. They are called "great," and their names are admiringly emblazoned on flaunting banners, and find full place in annals, cyclopedias, and current histories. Perhaps the battle-field was won more by the bravery and *clan* of the soldier than the skill of the general. It may be that the book was but an adroit compilation of the thoughts of other writers, merely revamped for the time and purpose at hand. Too often the idea of the invention securing the patent was stolen from another. The world's judgment is but superficial at its best. But the world grows wiser day by day, and it is to be hoped that in the near future the popularly esteemed "great man" will be he who has displayed the brightest, the most symmetrical, and the most consistent *character*: who, by his unswerving fidelity to truth and right, has set an example of pure and true living; who has been faithful to every trust, and conscientiously performed every duty,

whether small or great, either private or public, with a true heart and singleness of purpose. Then a juster estimate will be placed upon men and their deeds. Then it will be impossible for a vicious man, whose whole life is a curse to those most intimately associated with him, over whose course of life he acquires a controlling influence, to be "immortalized" by a single deed which may rightly be considered "great."

The subject of our sketch, Charles H. Allen, deserves the meed of just encomium. Born in Mansfield, Tioga County, Pennsylvania, February 11th, 1828, he received his early education in the common schools of his native district, and then entered the Condersport Academy in McKean County, and followed its full course of work. He then went to Jamestown, in New York, and began teaching in the public school. Thence he went to the Westfield Academy, where he took charge of a normal class; and after several subsequent appointments to various schools, was elected principal of the academy at Smithport, in Pennsylvania, which position he held for three years, resigning then on account of failing health. Mr. Allen now commenced the business of surveying in McKean County, Pennsylvania, continuing for three years, when he was elected associate principal of the Normal School at Westchester, Chester County, in the same State, and served one year. Thence he went to Wisconsin to hold a series of teachers' institutes for the State, and after several months of that work was appointed "agent" to the regents of the State Normal Schools; in which capacity he labored about two years, holding institutes and supervising normal classes. He then opened a private normal school in Madison, Wisconsin, leaving this work to take the position of principal of the normal department in the State University, and serving therein three years. When the Civil War broke out, Prof. Allen raised a company of volunteers, was elected to its captaincy, and marched to the war. At the expiration of the term for which he enlisted, he returned to the university. His health failing again, he removed to Cincinnati, and engaged in the insurance business; but his abilities as an educator were too valuable to be smothered in mere money matters, and he was ere long induced to accept the principalship of the first Normal School of Wisconsin, where he taught during the ensuing five years; when, finding his health still in an unsatisfactory state, he determined on making a radical change, and went to Oregon and opened the "Bishop Scott" Grammar School in Portland. Recovering his health, he returned to Wisconsin, and was there engaged for a year as institute agent. The trustees of the Normal School of California sent for him, and gave him the position of teacher of natural science in the State Normal School at San Jose. In March, 1873, he was elected vice-principal, and in August of the same year principal, of this school. In June, 1882, he was elected principal of the Los Angeles Normal, while yet retained at the head of the school in San Jose.

Prof. Allen had charge of the construction of the present normal building in San Jose, and it was due to his watchfulness and care that it was erected at a cost within the appropriation of \$150,000. The building is a

model of its kind, and perfectly adapted to the special services of its design.

Prof. Allen has been eminently successful as principal of the Normal School of California. Through his exertions the school is second to none in the United States. While attending to the arduous duties of principal of this school, he has also conducted institutes in every part of California. No other man has done so much institute work in this State, and he is unequaled on this coast in such work. His services at these gatherings have done much to elevate the teacher and the teacher's work. He has succeeded in making county institutes valuable to teachers by the practical work he does in them. Many institute workers deal mainly with the ornamental branches, but Prof. Allen commences with the primary work, and all grades of teachers are benefited by his instructions. He does not tolerate any waste of time but goes to work at once and utilizes every moment.

In stature, Prof. Allen is above the average, being about six feet in height. He is a man of fine presence, and readily succeeds in commanding the attention of an audience or a class, being both concise and incisive in expression.

In politics, he is a liberal Republican. He is always interested in political movements, but never allows his political views to influence him in school matters. He is an active member of the Episcopalian church, and he is as liberal in religion as he is in politics.

Mr. Allen is very practical in all his work, and he is an indefatigable worker. He has a peculiarly happy faculty of impressing his pupils with the necessity of hard labor to accomplish success. He is not only a scholarly man, but also a thorough organizer. The first impression of him may be that he lacks the nervous energy needed at the head of a great establishment; but he has in a remarkable degree the power of administration—of bringing things to pass. And a noteworthy point in this regard is, that everything is done quietly. There is no assumption about him; no parade nor ostentation; no din of gong nor trumpet-blare about it. We seldom see one doing his work more unobtrusively. Possessing true modesty, he has not the false timidity of inefficiency. In brief, he possesses quiet power. Here is a man who, without show or apparent ambition for applause, is doing day by day a great work. In this day of loud pretension, this example is highly beneficial.

Prof. Allen's mind is not only highly cultured, but is by nature well balanced. No tares nor thistles have been suffered to smother the good grain. His judgment on any point is worth obtaining. Broad and liberal in entertaining new suggestions of advance on any point, and hospitable to new things, yet he does not lose his head and run into extravagances. No one scans more closely and critically the field of education, nor takes more intelligent note of all that is good in its most progressive thought and movement.

Inquiring for the qualities that win for Prof. Allen such genuine and universal regard, we may with propriety apply another's estimate. They are

least those that can be measured by a salary price—the fine and accurate scholarship, the sturdy common sense, the even temperament, the steady and persistent energy, the organizing and executive faculty, and the general culture; but above these professional requisites, first, last, and all through, there belong to him rare qualities of character, and the symmetry and equipoise of a well-balanced manhood. There are the deepest conscientiousness, the kindliness that sweetens and tempers his sense of justice, the quiet moral energy set aglow by a hidden and steady enthusiasm, the unconscious power of grappling at once and always with the impenetrable hearts and minds of youth, and so molding, guiding, inspiring, strengthening: not so much by the mere rules of discipline as by the subtle influence of his own personality, working within his pupils both to will and to do, kindling up their moral and intellectual aspirations and educating their own free faculties, and so making them spontaneous and manly and womanly scholars.

That the ever-broadening field of educational labor on the Pacific slope may long continue favored by the thorough cultivation of such a faithful and intelligent overseer as Prof. Allen, and that he may during many years view generous harvests of fruit from his wise sowing of seed, is the earnest desire of all who have the intellectual welfare of the commonwealth at heart.

C.

PEDAGOGIC PERCOLATIONS.

TO start anew, having returned refreshed and invigorated by country air and rest, seems but the natural result of our June vacation. How to make the best start is the question with each earnest teacher. The primary school naturally takes the most prominent place with me. Why should it not also with the whole community—citizens, parents, and teachers—since the success of the grammar and even the high schools must depend in a large measure upon the true direction and firm foundation obtained in the primary schools? Yet, if salaries are to be reduced, teachers in the primary schools are the first to suffer. Is it strange that most of our best teachers seek the best pay, especially when combined with more pleasant and less laborious work?

Why do citizens permit inexperience to practice upon their youngest and sweetest children? The wise tact which adapts itself to the various idiosyncrasies, especially prominent upon the child's first attendance—encouraging the timid, subduing the rebellious, brooding the tearful, quieting the turbulent, and harmonizing the whole—is too little considered and too seldom sought; and that experience which detects incipient disease incident to childhood, and anxiously cares for the physical as well as the mental and moral character, is not at all considered. Yet how much our success as a nation depends upon a proper physical education! How often teachers become so interested preparing for test examinations that they forget calisthenics, abusing the body as well as the brain of each unfortunate member of the class!

What is learned is important, but how it is learned is far more important, and text-books do not contain the most valuable part of education. Punctuality, order, attention, application, prompt obedience, kindness, and cleanliness are far more necessary to success in life than a knowledge of arithmetic, grammar, and geography. No business can prosper without these elements underlying and advancing it.

Present these virtues as opportunities occur, until they become the child's own habit of thought and action.

The importance of punctual attendance should be illustrated by practical examples of loss sustained. The beauty of order as well as its convenience should be presented. The classes that sit erect (not with arms folded, that is a barbarism), shoulders thrown back, and feet level on the floor, are not only in the most pleasing, but really in the most comfortable, position. Lounging in seat, movement, or walk should be sharply condemned as offensive in itself to all well-bred persons, and typifying a disposition to despise public opinion and social culture; uncouth gestures, like raising either arm, first one, then the other in a frantic manner, and at full length. Shaking the hand and snapping the fingers should be reproved, and the quiet, modest signal of the right arm only raised from the elbow encouraged. Insist upon the use of the aisle on the right, which will prevent collision, and give another habit of order. Let slates and books be taken from and returned to desks with quiet precision in obedience to a definite signal. In exchanging and correcting work, much confusion can be avoided, as well as collusion between pupils prevented, by the following regulation: At one, pupils gently lift slates; at two, pass to the right, left, forward, or backward, as the teacher may command before signal one is given; at three, quietly place received slate on desk; at four, those who have two slates rise with their own in right hand; at five, pass to the opposite side or end of room, and give slates to pupils who have none; at six, return to seats. With a well-trained class, these orders will be given and executed so rapidly that time even is saved.

Children ought not to be allowed to complain of mistakes made in correcting work, excepting at a stated time and regular call. A very convenient method is to instruct them to examine work, and be prepared to correct the same orally the following day, when all the class may work from the black-board; while the teacher calls up one row at a time, approves perfect papers, attends to complaints, and hears errors corrected. This insures individual instruction to those who most need it. At this, as well as at all times, insist upon certainty in preparation of lessons. A pupil who hesitates in reciting should not be allowed to stumble through a half-learned lesson; nor after a hasty study, permitted to recite with text fresh in the mind.

Attention may be tested and secured by frequently calling on some one to repeat the question—a thing the teacher should seldom do. Application may be encouraged and trained by timing the class while they learn an entirely new lesson. See who will first memorize it, then who can best express the same in their own language.

Industry is secured by giving pupils enough to do, and always seeing they

do it. Obedience is desirable, but loses half its value when not prompt. Some allow pupils to ignore the first order, thus forming a ruinous habit of mind. Kindness must originate with the teacher. The one to whom all children are friends simply sees her own image reflected in a mental activity springing to meet her own mental state. "Cleanliness is next to godliness." In truth, I would give but little for a godliness that is not clean. Every day the teacher should examine the personal condition of the pupils. For review, let the first two rows face each other, sitting sidewise in their seats. Passing rapidly up the aisle, the teacher credits and checks right and left. When she reaches the end of the first aisle, those pupils turn face front as usual, and the next two rows turn sidewise, and are reviewed in the same manner.

Even pausing to make an occasional comment, an active teacher can review sixty pupils in three minutes. I know from actual experience that this daily review has a wonderful effect, and two or three days' neglect will result in a very marked change for the worse in the appearance of the class. One day the teacher of a recruiting class was pathetically asked by a little boy who came day after day with torn and terribly soiled clothes, if she would not give him just one extra. She explained so the active little mind comprehended the condition—that the credits must be earned before they were given. The next day he appeared triumphantly whole and clean, telling his teacher in the most enthusiastic fashion that papa blacked his shoes for him before going to work. Was there not a new and sweeter love born in such a display of parental pride?

Besides being contrary to law, it is actually criminal to permit unwashed children to sit by clean ones. Teachers should not only inspect pupils, but should also endeavor to dress themselves with some taste, as a love for beauty and its consequent elevation can thus be cultivated. When young, children are generally so unconscious of self that they express their appreciation with a most touching grace. But a few days ago, while a teacher was standing by an unprepossessing, six-year-old boy, she felt his hand stroke her arm, and turning to see what he wanted, met his face full of admiration, while the baby voice piped:

"It is so pretty."

"What is pretty?" asked she.

"O, the buttons on your sleeve, and the string around them," he replied.

The simple arrangement of cord and buttons had evidently touched and filled his artistic capacity; and so awakened, who can predict the end thereof?

AURELIA GRIFFITH.

Principal Union Primary School, San Francisco.

To prepare us for complete living, is the function which education has to discharge; and the only rational mode of judging an educational course is to judge in what degree it discharges its functions.—*Spencer.*

HERMES TRISMEGISTUS.

As Seleucus narrates, Hermes described the principles that rank as wholes in two myriads of books; or, as we are informed by Menetho, he perfectly unfolded these principles in three myriads six thousand five hundred and twenty-five volumes. . . .

Our ancestors dedicated the inventions of their wisdom to this deity, inscribing all their own writings with the name of Hermes.—IAMBULICUS.

STILL through Egypt's desert places
Flows the lordly Nile,
From its banks the great stone faces
Gaze with patient smile.
Still the pyramids imperious
Pierce the cloudless skies,
And the Sphinx stares with mysterious
Solemn, stony eyes.

But where are the old Egyptian
Demi-gods and kings?
Nothing left but an inscription
Graven on stone and rings.
Where are Helius and Hephaestus,
Gods of eldest e'd ?
Where is Hermes Trismegistus,
Who their secrets held?

Where are now the many hundred
Thousand books he wrote?
By the Thaumaturgists plundered,
Lost in lands remote;
In oblivion sunk forever,
As when o'er the land
Blows a storm-wind, in the river
Sinks the scattered sand.

Something unsubstantial, ghostly,
Seems this Theurgist,
In deep meditation mostly
Wrapped, as in a mist.
Vague, phantasmal, and unreal
To our thought he seems,
Walking in a world ideal,
In a land of dreams.

Was he one, or many, merging
Name and fame in one,
Like a stream to which, converging,
Many streamlets run?
Till, with gathered power proceeding,
Ampler sweep it takes,
Downward the sweet waters leading
From unnumbered lakes.

From *In the Harbor.*

By the Nile I see him wandering,
Pausing now and then,
On the mystic union pondering
Between gods and men;
Half believing, wholly feeling,
With supreme delight,
How the gods, themselves concealing,
Lift men to their height.

Or in Thebes, the hundred-gated,
In the thoroughfare
Breathing, as if consecrated,
A diviner air;
And amid discordant noises,
In the jostling throng,
Hearing far, celestial voices
Of Olympian song.

Who shall call his dreams fallacious?
Who has searched or sought
All the unexplored and spacious
Universe of thought?
Who, in his own skill confiding,
Shall with rule and line
Mark the border-land dividing
Human and divine?

Trismegistus! three times greatest!
How thy name sublime
Has descended to this latest
Progeny of time!
Happy those whose written page,
Perish with their lives,
If amid the crumbling ages
Still their name survives!

Thine, O priest of Egypt, lately
Found I in the vast,
Weed-encumbered, somber, stately.
Graveyard of the Past;
And a presence moved before me
On that gloomy shore,
As a waft of wind, that o'er me
Breathed, and was no more.

HENRY W. LONGFELLOW.

A HOODLUM.

CHAPTER IX.—THE LEISURE OF LIFE.

MUSIC belongs to the leisure part of life, though one cannot become a good musician without a great deal of hard work, aided by a certain amount of natural talent.

The primary aim of music is to please, though it may also excite the passions or move to tears. As a solitary recreation, it is excelled by no other pleasure; and as a means of social enjoyment, it unites those who join together in rendering the same piece in closer bonds of unity than any other employment.

Especially is this true of vocal music, which permits each one to take a harmonious part, and add his share to the effect of the whole. Music awakens a chord of sympathy between total strangers; acts as a common friend by introducing one to the other, and giving a bond of surety that each possesses some lovable qualities—some of the so-called finer feelings of human nature.

Children are attracted towards those who can “make music,” and a sweet voice will cover a multitude of faults.

We speak of music as “inborn”—as “natural to some people”—and to a great extent this is so; but if a child is to use his mother tongue with any degree of precision and fluency, he must hear an abundance of speech from babyhood through at least the first five years of his life. So it is with music. I never yet knew a musician who had heard little or no music during his babyhood and early childhood. A mother’s songs, lulling the scarcely conscious infant to sleep, will do more to breathe music into the very nature of the child than hundreds of lessons in later life given by the most eminent musicians. Music is truly a part of our mother tongue, and happy the child whose earliest dreams recall the tender melodies which night and day attuned his soul to softer, sweeter impulses.

Carl had often suspected that Donald’s parents had belonged to a better class than most of those whose children roam the streets of San Francisco; for education, whether bad or good, is but a surface covering of our inborn nature, which, like rooted plants, take from the soil those things they need, and really change their natures but a little when the part which is unchanged is compared with that which, being comparatively unstable, changes with the environment. Yet that treatment which gives the orange the better culture, the needed moisture, and the freedom from weeds that sap the ground, really makes a sweet, fine-flavored, large-sized fruit; where neglect produces a small, unsavory growth unfit for humanity’s uses. Both are oranges; but while the one is sought after, esteemed, and praised by all, the other is without value or use, hindering the growth, it may be, of better varieties. So it is with the hoodlum. If the man is there, education will develop it into that which we esteem and honor—into something of use to the rest of mankind. But if the variety be worthless, if the stock be morally and physically diseased, it is idle to look for fruit from the fire-weed.

Like begets like, and virtues as well as vices are visited upon the children for generation after generation.

"You do not remember your mother, Donald," said Carl one day after the two had been singing for some time. "I am sure she must have been fond of music, and sung you to sleep many a time in early childhood, for you take to music so naturally. I believe you remember more of that song we heard last week in Santa Barbara than I remember."

"May be that is because I don't depend upon the notes so much," replied Donald. "You know you told me that you could learn a tune by ear far more readily before you learned to play and sing by note."

"Yet I think the reason of that may be because I knew fewer songs, and had more room in my musical memory. True, musical memory strengthens by use, but one can retain only a certain number of tunes in the memory at any one time. As new pieces are learned, old ones fade away, and age grows conservative and does not care to part with the older songs in order to learn new."

Though Carl gave Donald regular lessons upon the small cabinet organ, which was considered an important part of the furniture at Camp Comfort, yet he treated music as a pastime instead of a task—something to be taken up at odd moments; something to resort to as a rest or recreation. Boys care more for melody than for harmony, and for vocal rather than instrumental music; so Donald's first pieces were some of the negro melodies of Stephen C. Foster, such as "The Old Folks at Home," "The Old Kentucky Home," and other pieces, grave and gay. It is rather curious that young children often fancy mournful songs rather than lively ones.

Stirring war songs are favorites with boys, for the noisy, defiant tone of such pieces seems to suit both lungs and spirit. Nor did Carl confine his list of patriotic songs to those of this country. The Marseilles, The Watch on the Rhine, Carlist songs, The Sons of Norway, Scots Wha hae wi' Wallace Bled, and many other standard national pieces were sung again and again. Many of the songs were used for history lessons, and the history of each song of national importance was read and commented upon.

Unless a person intends to make music a profession, it is all humbug to spend hour after hour every day for years in practicing scales and five-finger exercises. Such things have to be studied and practiced, but the main amount of work may profitably be put upon the music itself that you wish to learn. It is so much easier and pleasanter to learn chords in connection with a song, to learn harmony in connection with part music, to study vocalization along with a beautiful air, and to strengthen fingers and voice over something that is of permanent value.

The same principles which guide a teacher of reading will operate as successfully in teaching vocal music.

Quantity of matter sung; proper gradation of lessons; the subject-matter to be of interest to the pupil; the voice to be soft, clear, and natural in tone; the position to be favorable for correct breathing; the ear to be trained to recognize proper tones and inflections;—all these and many more are as necessary to one study as to the other.

Read to learn how to read, and sing to learn how to sing; for theory without practice is like bread without flour.

A few dozen standard hymn tunes were studied, and Donald learned to play most of these from memory. Singing enlivened all the work at Camp Comfort, and had not Donald and Carl sung as naturally as they talked, they would soon have made themselves hoarse. But correct singing scarcely tires the voice as much as talking, for the variations of the voice seem to relieve it in a measure. Unless one sings because he likes to sing, music becomes a task instead of a recreation, and then it is hard to say of what use it is to the performer. It is doubtful, too, whether such music can give much pleasure to the listeners, lacking as it does the real spirit of music.

Children who cannot sing a tune, nor even call a tune by name when they hear it, should never attempt to study music. It is a waste of time and money. It is also doubtful whether music should be taught as a study in many of our country schools, though as a recreation it holds an undoubted place. Much can be said on both sides of this question, though usually but one side—the music side—is presented by its advocates.

Singing part music should be tried at an early age, and Carl encouraged Donald to sing an alto part, or to lead on the air, while he sang the base. The great trouble with the majority of singers is the inability to sing independently of others, to lead in any part, to be able to carry a few measures of solo, or of what is sometimes called broken time.

No better training can be given to the eyes than the playing of music written on four or more staves, and with the words printed on another page, it may be. To take this kind of music and sing and play it at sight requires a quickness of sight and a readiness of comprehension which can only be had after considerable practice.

Carl encouraged Donald to sing and play at sight; for what would we think of a scholar who, on being asked to read a certain extract from a paper, should try to excuse himself on the ground that he had never practiced that piece before? In order to read or to sing a piece real well, study on that piece is of prime importance; but to do either passably well only requires proper training. And what pleasure can one take in learning new pieces, if one has to strum a piece to death before he can play it musically?

Singing while climbing up the mountain trails is one of the very best exercises for the lungs that one can well imagine; and Carl and Donald used to make the way to the city and back much shorter by the songs they sang while going up and down the trail.

The two made frequent journeys to neighboring peaks, cañons, the beach, and other places of interest. "All work and no joy makes Jack a dull boy," and it is not well for any one to stick too closely at home.

Short races, target practice, fishing, hunting birds' eggs, gathering many varieties of natural history specimens, swimming, training domestic animals, and many other pleasant employments profitably filled up much of their leisure hours. Nor did Carl consider the hours spent under some shady tree in pleasant conversation to be time idly wasted. Many of Donald's most

valuable lessons were learned at such times, for when the mind is free from care and at peace with the world, ethical truths sink deepest, and leave the most lasting impression.

CHARLES M. DRAKE.

Santa Paula, Ventura Co.

READING.

THERE is scarcely a greater mistake in connection with the desire for knowledge than in supposing that reading—the reading of good books, of instructive books—necessarily brings knowledge. Not the amount of good reading, nor yet the method of reading, but the proper limitation of reading to begin with, and the use afterward made of that which is read, must settle the question of the gain or loss as a whole from reading. As a rule, the men and women who know most are not great readers; and as a rule the men and women who read very much do not know a great deal. “Had I read as much as others,” said the philosopher Hobbs, “I had remained as ignorant as they.” And Milton had about the same idea of reading, when he said :

“ Many books,
Wise men have said, are wearisome ; who reads
Incessantly, and to his reading brings not
A spirit and judgment, equal or superior,
Uncertain and unsettled still remains—
Deep versed in books, and shallow in himself.”

Continuous reading stands in the way of earnest thought, and forbids that study to which almost every well-filled page would prompt a thoughtful mind. To read right on hour after hour, book after book, without stopping to consider and to follow out the facts, or the principles, or the suggestions brought before the mind in that reading, is like searching the beauties of a new country by whirling through it on an express train, never stopping to clamber a mountain, or to follow a winding stream, or to sit and watch a lovely bit of landscape in its changing hues. Go to any public library, and learn who of its visitants draw most books from its shelves. You will find that among the less-informed readers are the all-devouring readers. Those who really gain from reading are so busy—making their former reading profitable, and reading over again what they have read before—that they have not had the time to read much new material.

“ Learning is more profound
When in few solid authors 't may be found.
A few good books, digested well, do feed
The mind. Much, cloyes ; or doth ill-humors breed.”

The man or woman who can find time to read through a daily paper every day, and then to “keep up” with all the better current literature of the times, gives proof by that very ability of an inability to gain much knowledge, without a change in methods of seeking knowledge.

S. S. Times.

A COSMIC GEOGRAPHY.

For use of teachers and classes in connection with any series of text-books on Geography.
MAN.

IF we look at men as they are now, to divide them by marks of color and locality, we find the *White*, or *Caucasian* race, from the Caucasus mountains, almost identical with the Aryan race; the *Yellow*, or *Mongolian* race, which includes the Chinese and Japanese; the *Red*, or *American* race, which includes the American Indians; the *Black*, or *Ethiopian* race, which inhabits the interior of Africa; and the *Brown*, or *Malayan* race, which includes all the barbarous inhabitants of the world besides.

As men live on the earth, they are naturally formed into families, with father, mother, and children in each, under the government of the parents. These families then join into groups under some general rule to which they all consent; this is a community or town. Barbarous tribes have their chiefs, who act as despots. People of other degrees of civilization have other forms of government. Towns are leagued into states; states into nations. An *empire* is composed of many states or kingdoms, all under a chief ruler called an Emperor, a Kaisar or Czar, Sultan or Caliph, Khedive or Shah. A republic is a union of states in a common government, with their own consent, governed by a man or men chosen by the whole people, and ruled by laws made by men chosen by the people. The chief officer is the president. He is to see that the will of the people is carried out. A kingdom is governed by a king or queen, who may or may not be greatly affected by the will of the people. If the king is a despot, it is called an *absolute monarchy*; if his power is dependent more or less upon the will of the people, it is called a *limited monarchy*. The republic is the most advanced form of government, and the one to which all civilized nations are tending. The United States of North America is the largest and most successful republic in the world, educating all its members so that they may be able to make good laws and choose good rulers. The ruler of a kingdom is a king or queen.

TABLE OF RACES.

ARYAN.			SEMITIC.
Persian.	Slavonic.	Romanic.	Arabs.
Germanic.	Russians.	French.	Syrians.
German.	Polos.	Italian.	Hebrews, or Jews.
English.	Hungarians.	Spaniard.	
Danes.		Portuguese.	
Swedes.		Greek.	
Norwegians.			
Dutch.			
	Celts.		
	Irish.		
	Highland Scotch.		
	Welsh.		

QUESTIONS.

[Map of Distribution of Race.]

Point out the countries where the English language is spoken; the French; the German; the Spanish; the Italian; the Russian; the Turkish; the Japanese.

Point out the English colonies all over the world; the French; the Dutch; the Spanish; the German; the Russian.

Give the characteristics of each race. How does a Spaniard differ from an Englishman? a Frenchman from a Dutchman? a Patagonian from an Esquimaux? a Persian from an Irishman? a Chinaman from an Italian?

Describe a meeting of representatives from each nation. Which are the dark-skinned nations? the light-skinned nations? the tallest races? the shortest races? the strongest races? the most industrious races? the most truthful races? the most hospitable races? the most selfish races? the most artistic races?

MRS. LOUISA P. HOPKINS.

In *New England Journal of Education.*

HOW TO TEACH SPELLING.

I TRANSCRIBE on paper or tablet the pictures of words that I have in my brain. This is the process of spelling, and needs not the slightest qualification or explanation to make itself clear to any one who will think of exactly what they would do when they write a word. If we misspell a word, our brain-picture of it is defective; when we *think* it wrong, we are comparing the written form with the brain form. Our attention to this form brings it more distinctly into the consciousness, and the mistake is seen and corrected.

Words oftentimes come into the brain as combinations of sounds (names of letters), which must be translated into forms before they can be written. If this has not been done previous to the act of writing, a double and difficult process takes place, which, together with the absorbing thought of composition, renders such translations imperfect. Thus many people who spell exceedingly well orally make many mistakes in writing. A teacher took three prizes at spelling-schools, and made five mistakes in spelling in a short note to a school committee.

The foundation of spelling should be, then, the reception in the brain of forms, not sounds. The most favorable condition for the mind's perception and retention of correct word-forms, when ascertained, will give us the best possible method of teaching spelling. First, then, the closest attention to a form to be retained is brought about by the most energetic exercise of the sense of sight upon that form. The closest attention to a form is attained by attempting to draw it. The closest attention to a word that can be given is to draw it; that is, to copy it in writing.

All primary study of spelling should be by copying words. Let me repeat: as drawing is the best method of training sight, so drawing words is the most economical and practical method of teaching spelling. Trained sight will take in a word-form at one seeing, so that it can be correctly reproduced with great ease. Two more very important principles, and I will give the details of a natural method. The forced attempt to reproduce or express that which is vague and indistinct in the mind is detrimental. Original mental representations or pictures are the results of repeated action of the perceptive faculties upon the same objects; they grow into distinctness very slowly indeed. Thus the little child must hear the same word hundreds, perhaps thousands, of times before it attempts to utter it. There comes a time, however, when the accretions of impressions of the same spoken word, by its own vividness, force the child to utter it—the first word.

In like manner the word-form, slowly produced by close seeing (writing), should not be reproduced until it is distinct in the mind. The child should be prevented, as far as possible, from seeing or even reproducing incorrect forms, for they stamp themselves as readily upon the mind as correct forms, and will turn up on paper as unwelcome intruders. The same is true of all forms and expressions—capitals, punctuation, and syntax. The details of the method, founded upon these principles, which I have endeavored to follow for several years, and I think with excellent results, are as follows:

1. The first year (lowest primary) should be spent in copying words, with little or no reproduction without copy. Language consists of reading (recalling ideas), and composition (expressing them). Reading and composition should be taught together, as two branches of language. Every word and every sentence taught should be copied from the blackboard on the slate, and then read from the slate. No matter how crude and awkward the first copyings are, they should be commended, and the writer encouraged. They are types of the child's crude perceptions. Perseverance will soon bring order out of seeming chaos. The better the picture of the word the child makes, the more distinct will the impression be upon the mind; therefore technical writing should be taught from the first. The writing of words and sentences helps reading essentially; and if it were done for no other purpose, the time would be well spent—time which would otherwise be given to listlessness or tiresome idleness.

2. At the end of the first year, quite a number of distinct mental word-pictures will be stored in the mind ready for reproduction. Begin carefully; after a word has been copied from the board, erase it, and have it reproduced without copy. Do the same with two words, then three, and so on. Write a sentence, erase part of it, and then cause the whole to be written. *Never have one word written incorrectly*, if you can possibly avoid it.

3. Teach those words only which your pupils use in language. This rule holds good throughout the course. By language I mean words used in any and all recitations. When a word is misspelled, have it corrected immediately. Keep a list of misspelled words, and teach no other words until they are learned.

4. Teach the most-used words first—words like *is, are, were, was, been, shall, will, they, there, their, whose, which*, etc.

5. Teach words separately and in sentences. The best test of spelling is writing from dictation.

6. No word should be taught until it is the sign of a distinct idea in the mind of the learner. The first year the child should be trained to express thought orally; the second year, to talk with the pencil, which involves the reproduction continually of words which he knows. The spelling is made a minor branch of language-teaching, taking very little extra time.

7. During the third year, oral spelling can be introduced as a valuable auxiliary. It will be found in the third year, if this method has been faithfully followed, that children will write correctly most new words after reading them once; this is a trained product of trained sight.

8. All study of spelling should be by copying words and sentences in the best possible handwriting. The copied words should be marked and corrected just as carefully as any other lesson.

SUPT. F. W. PARKER.

Primary Teacher.

THE PRACTICAL DUTIES OF THE COUNTY SCHOOL SUPERINTENDENCY.*

UNDER the old Constitution, the county school office was a shady nook—a quiet retreat where none but gentle breezes disturbed the air—where flowers had time and space to grow and bloom: a garden of the muses, where the happy young school-master who was elected to it could cultivate his mind—study law or medicine or theology on the sly—and be ready to bid adieu to the school-room when he vacated his office. But not so under the new Constitution. We have plenty of work now, and no small share of worry. The ambitious young man who expects to climb into the office, and through it to law or medicine, will find himself mistaken.

But, my ambitious young friend, if you desire a real good office, with big pay and light work, and plenty of honor, just go for the office of *State Superintendent*. There is the shady nook, now—a garden of Hesperides, a very Elysium. We all know the happy present incumbent. Would any one suspect him of work or worry? Ah, what good times visiting and addressing institutes! What pleasant duties receiving reports from fifty subordinates, sending out blanks for others to worry over! The State office is the one for you, young man; but the county office, under the new Constitution, has sadly degenerated into a workshop, hardly relieved by the occasional little duty of riding twenty miles through the mud to visit a school.

One might not suppose that the business of the semi-annual teachers' examination, which is taken from the State and given to the county board of education, would very much add to the burden on the county superintendent;

* Selections from an address delivered by invitation before the State Teachers' Association.

but it does. Not only in the matter of making the questions, but also in correspondence with applicants, and all the endless variety of details connected with the certificate business. Under the old *régimé*, when the questions were objected to as too hard or too easy, it was *so nice* just to reply, "Well, you know the State board made them. We only take them as they are sent to us." But now we have to answer for ourselves, and happy is the superintendent who has a chivalrous board with him, who will take the discussions off his hands.

But I must not continue these comparisons too long. It is enough to say, as those of you who are blessed with a country experience know, that the county office now carries nearly all the burden of work and responsibility which was formerly supposed to rest heavily on the broad shoulders of the State board. That we sometimes stagger under it must be confessed, but we must go on doing the best we can, and endeavor to report progress from time to time, until some happy turn shall open the way to another new era, when our grand old State system may be *rehabilitated*, and established on a basis *firmer, broader, and grander than before*.

But I must come more directly to the topic assigned me—the practical workings of the county superintendency.

As cities become important marts of trade when railroad and water communication concentrate there from various directions, so this office is found to be the point at which, under the present order of things, the lines of communication concentrate. It is the medium of communication between the central State office on the one side and the body of teachers on the other. Again: it becomes the medium of communication between the teachers on the one side and the trustees and people on the other. It is the transfer station on the educational highway of civilization, and the county superintendent performs the duties all of depot agent, conductor, and baggage master.

But, laying metaphors aside, I will detail somewhat my experience of two terms in this office.

The book-keeping amounts to no great burden, and the office work is rather pleasant than otherwise. When the new Constitution came in and vacated the office of county judge, the board of supervisors kindly assigned me for my office the chamber formerly fitted up for and occupied by that official. It is a room fifteen feet wide and thirty feet long, elegantly carpeted, and fitted up with black-walnut furniture; lighted from two large windows, and with gas for evenings. It is a room to which the gallant school-masters and excellent school-marms of Butte County are *pleased* to resort; and when the honest farmer or the crusty miner comes in to talk school with the superintendent, he feels proud of himself and his county. And it is *due* that every county in the State should fit up just such an office for its school department. Supervisors sometimes expend hundreds of dollars on a little repair about the court-house yard, or on the abutment of an old bridge, while they allow the school office to inhabit some small, dingy, dark, and damp room with a brick floor, and whose entire inventory of furniture is an old pine desk, a home-made bench, and three cheap chairs. No man can appreciate the higher

duties of his station in such an office room as that. Let us insist on a good workshop, and let us do good work in it.

Office work consists not only in keeping the required books, drawing requisitions, and making reports. I find much use for my office for conferences with teachers and trustees. On regular office days, Mondays and Saturdays, I meet trustees from all parts of the county, who have business at the county seat, and from them learn concerning their schools. In these talks I have occasion, on the vantage-ground which being in my office gives me, to speak freely concerning improvements desired in the districts. If you talk to a trustee when he is at home in his district, you are apt to find him much less liberally disposed than when he is in town and in your office.

The county superintendent should give, in my humble opinion, vastly more attention to the general business affairs of the districts than some of us have been accustomed to do. The erection of new houses; the repair of old ones; the necessity for new furniture; the right use of the library fund for reference books, globes, maps, charts, and other necessary apparatus—should all receive his direct attention. And the longer he remains in office, the more freedom can he use in counseling trustees in these matters. With the co-operation of the teacher, which he should always have, he can well nigh control these business affairs, and so save the schools from the merciless imposition which they sometimes suffer at the hands of traveling agents.

Trustees, as a general rule, are willing and pliable where they have confidence in their superior officers, and will always do what is for the best; but many of them need showing, advising, and sometimes a little urging. In these matters, I repeat again, the superintendent needs and should have the co-operation of the teacher; and much of the work can be done in his office.

In providing his schools with teachers, the superintendent has a delicate and very responsible work before him. He should have no favorites or pets, but judge with discrimination as impartially as possible, and with but *one* motive—the good of the schools. A year ago, after I had secured a certain school for a young lady teacher which she was very anxious to obtain, when she thanked me so heartily, I replied: “O, no thanks. I was not looking out for *you*, but for the *school*. I wanted a good teacher for that place.” Of course the compliment was appreciated, and the thanks renewed with increased emphasis. Last Wednesday night I officiated at her wedding in your neighboring city of Oakland, and she is now the happy bride of one of the most promising young lawyers of Butte County. She has gone the way so many of our talented young lady teachers have gone before her. To the young ladies present, I would say, Beware! Young lawyers and doctors are not to be trusted. They invade our schools, and ever and anon carry away the choicest of our young teachers, who should rightfully become the wives of our best young school-masters. I am not sure but that it should be made one of the special duties of the superintendent to *look after* these matters.

Young teachers who have just obtained certificates more especially need the kindly assistance of the superintendent. Using proper discrimination as to their merits, he should assist them to get schools, and start them in the pro-

fession. It is my experience that, after one term's experience, these beginners develop rapidly into the best teachers. At any rate, we must keep the living stream flowing. Let the young teachers come on. They will crowd nobody out except some old fossil with twenty or thirty years of experience, but answering the description which the *young* Pitt applied to the *old* Walpole. Experience is a good thing, but talent and spirit and a will to work are better. In the hands of a judicious superintendent, talented young teachers will learn to profit by the experience of others, and soon acquire one of their own.

I shall not stop to speak of the duties of the superintendent in connection with the board of education. If he has the force and influence which he should possess, the board of supervisors will give him such a board of education as he may select. With a board composed of the best educators in his county, himself should be the leading spirit in all their work. In company with them, he selects the text-books to be used, arranges the course of study and all the detail work of the schools. He guides and controls the teachers' examinations. In our county, we have provided that the county superintendent, accompanied by two other members of the board of education, shall attend the closing exercises of all the principal schools, conduct an examination for the graduating class in the grammar course, and award diplomas to all pupils who successfully complete the grammar course. He will, on such occasions, make an address, and it is expected that a lively public interest will be elicited.

In conclusion, I will speak of the great, leading, paramount duty of the office—the visitations of schools.

I have heard of one superintendent who called in at the school to say "howdy" and "good-by," and then spent the day visiting citizens through the neighborhood, to make himself popular with voters. The man who thinks this will do has, in my judgment, mistaken the intelligence of the California public. The people learn through their children when the superintendent is around, and they expect him to make a good square visit to the school. If the school is in the hands of an experienced and skillful teacher, it may be best for the superintendent to sit quietly by, and let the teacher go on with his usual programme. This, in order that he may learn not only how that teacher conducts his or her school, but that he may himself take a lesson, or a hint, of a good suggestion, and communicate it to others.

Passing the school of the able teacher, he enters that of an inexperienced beginner. After frightening the poor girl and her little band of country urchins almost out of their wits by the august solemnity of his presence, sitting in majestic dignity a silent observer of their work for some half-hour or so, the benign superintendent relents from his personal and official pre-eminence, and gently takes the reins out of her hands, and proceeds to conduct the exercises himself. The thing is done so nicely that neither teacher nor pupil perceives exactly how or when, but unconsciously finds the master in charge. On the school goes for an hour or more, full of life; new thoughts being awakened, new methods exemplified, and new instruction given, until all at once it is perceived that the hour for closing has come. Then a little speech

about studying well and behaving well, with a kind word for the teacher, and a promise to be punctual on the part of all the pupils with up-lifted hands, and then the august official with a satisfied smile returns the school to the hands of the happy young school-marm, who taps her bell once, twice, thrice, and the hope of the American republic is turned out into the open fields and the free air.

At the close of such a visit, a neighbor of mine, who was some years ago superintendent in Plumas County, took occasion to inspect some copy-books, specimens of writing, and map-drawing. While the pleasant-faced young school-marm sat and turned over the leaves, and the gallant young officer bent over the specimens, *her face*, occasionally upturned to his, became entirely too tempting. So he quietly touched her under the chin and gave her a kiss. With becoming grace, she simply said: "Mr. B., do you consider that a part of your official duty?"

Be that as it may, I am witness that that young man shortly afterwards married one of the choicest young school-marms in all that region of the State.

Pardon this *aside*. In connection with a visit to the school, the superintendent should inspect the grounds, examine the building and furniture, look into the library, and make a note of all things, so as to suggest to the trustees such improvements as may be needful; or to the trustees in another district what he may there see to commend.

And so the work goes on in endless variety. The office demands a live man; a well-informed man; a *brave, honest* man. Few are equal to the task which the duties of the office require; but every teacher in the land should aspire to it. As a field of usefulness, there are few positions equal to it. For its influence on the rising generation, for its nearness to the hearts of all the families, for its return of value received ten times over to tax-payers, for the actual work and good work which it affords opportunity for doing—it is an office much to be desired by every noble-minded teacher.

Fellow-teachers—I bid you God-speed in the great work in which we are engaged. *We work for humanity.* The broad basis of a great cosmopolitan population is beneath us, and the raging billows of conflicting interests and opinions are around us; but as the sun shines in mid-heaven, so the love-beaming eye of the All-Father is over us, and sheds a radiance of hope and cheer upon us. *We work for humanity.* The *to-day*, the *to-morrow*, and the *eternity* shall test and approve our efforts. When the great temple of American civilization shall have been completed, and the ages yet unborn send forth their choirs to sing *grace—grace unto it*—along its corridors and in its niches, where stand the monuments which commemorate the memories of those who have contributed to its perfection and beauty, not the least worthy among them shall be seen the names and forms of *the teachers of to-day*.

EDITORIAL DEPARTMENT.

THE UTILITY OF SELF-SACRIFICE.

OUR able contemporary, the *New England Journal of Education*, reviewing the condition of the public schools of Louisiana, and the last reports thereon from State Superintendent Fay and City Superintendent Rogers of New Orleans, has the following:

"The gist of it is, that the public-school teachers of Louisiana, and especially of New Orleans, still "hold the fort," although the bitter and relentless war against the common school is still waged with no evident purpose of abatement. In the whole republic there cannot be found a more devoted band of teachers than in New Orleans. Year after year they have stood to their guns in the face of starvation wages, paid with the most aggravating irregularity, in depreciated bonds. Had it not been for the heroism of a few hundred women, the common-school system of Louisiana would have been trampled into the mire long ere this, spite of the fidelity of the little band of noble men who have fought so bravely for its preservation."

Such self-abnegation is by no means confined to Louisiana or the South. We see frequent instances of it on this Pacific Coast. And what seems strange is that it is always accompanied by a dead-alive condition of the schools; by work done in a perfunctory manner, and with no apparent change for the better for a whole generation.

Nor is this to be wondered at. We have no confidence in Griselda-like virtues for reforming humanity. Progress was never reached by patient waiting. In the world of morals, it may be better to turn the sound cheek to the smiter; but those who follow the behest in their daily practice, rarely benefit either themselves or their neighbors.

We cannot commend the example of those teachers who stand at their posts even when starvation stares them in the face. Reformers are not made of such stuff. Protestantism would not have been had Luther been a conservative. Had bread and butter satisfied Watt and Stephenson and Morse and Edison, there would have been no steam-engine, no locomotive, no telegraph, and no electric light. Radicalism and aggressiveness are the driving-wheels of the car of progress; patience and non-resistance to oppression and wrong, the friction which impedes its speed.

The old maxim, that republics are ungrateful, implies simply that large aggregations of individuals rarely grant privileges from their own volition.

If teachers expect to obtain their rights, they must fight for and win them. Recognition as a professional body, a due appreciation of the importance of the work, its proper classification among the learned professions—all these will never be conceded in a community unless "at the point of the sword."

So we doubt that communities whose teachers work at less than half-price, irregularly paid at that, will ever get good schools or good instruction. Men and women who respect their work and respect themselves will leave a place where they are classed as "poor white trash," and paid less than a menial's wages. The aspiring—the enthusiasts—will go; only the drones—the incapables—will remain.

Our motto is, *Strike*. 'Tis the watchword of the age. If a thing is worth having, it's worth paying for. If our public schools are ragged schools, they may

be appropriate places for teachers ragged alike in person and in professional capacity.

If the public-school system of Louisiana or any other State contains in itself no elements useful and ennobling enough to furnish the best reason for its preservation and progress, let it go down. If our schools are not supported because they are needed and wanted and must be had, but purely on account of the self-sacrifice of "hundreds of noble women"—then, we say, it were far better the whole system went down into the mire; better destroy it in its entirety, and let time, common sense, and the imperative demands of society build up something intrinsically valuable and really strong in its stead.

THE SUPERINTENDENCY AND POLITICS.

THE able paper in this issue of the JOURNAL by Supt. Jesse Wood, himself one of the most efficient county superintendents this State has ever had, is peculiarly timely when our political conventions are making their nominations, preparatory to the election to take place on the 7th of November next.

In the mass of candidates, this journal has no interest. For the sake of the general prosperity of the country, on account of the principles of eternal truth and justice, which it believes in and advocates, it hopes to see elected the men who represent those principles. But it conceives that it has no right to go outside the strictly educational field in order to advocate the election of this man or that.

But with the superintendency, both state and county, it is different. Here is a question on which it is not merely a privilege, but a positive duty, to speak out, speak plainly, speak strongly. Who should be the State Superintendent? Who should supervise the schools of each county?—is what our readers are interested in knowing.

An answer to these queries, in a manner satisfactory and effective, is what the JOURNAL offers.

And let us promise political considerations shall not affect our answer. We shall not ask, Is the man Republican or Democrat? but, Is he capable and honest? In comparing the two candidates, our readers will see that Republicans and Democrats are equally recommended.

The qualities we demand in a State Superintendent are these: He must be a man of scholarly attainments; he must be or must have been a practical teacher; he must possess administrative capacity. That his personal and professional record be unblemished, and his integrity unquestioned, "goes without saying."

We hope to present such a man to our readers through the October JOURNAL, and to urge teachers and all interested in the welfare of our common schools to give him a united, hearty, and active support.

The nominees named by us in our local columns for the position of county superintendent, one and all, come within the requirements above set forth. The JOURNAL consequently gives them more than a merely perfunctory support. Such men as Smyth of Sonoma, Markham of El Dorado, Wickes of Nevada County, Thurmond of Santa Barbara, Yager of Tehama, Hartley of San Mateo, Chipman of Santa Clara, and others elsewhere named, are needed for the sake of the best interests in our schools. Our system needs them far more than they need the superintendency. Let trustees and teachers both make sure of their re-election by overwhelming majorities.

NOMINATIONS FOR STATE SUPERINTENDENT.

AS we go to press, we hear announced the nomination, by the Republican convention, of Prof. S. D. Waterman of the Stockton High School, for State Superintendent of Public Instruction. The two nominees now before the people are Prof. W. T. Welcker of Alameda County, and Prof. S. D. Waterman of San Joaquin County.

JANUARY NUMBERS WANTED.

WE want about twenty copies of the January JOURNAL. The subscription of teachers sending us said numbers will be extended one month.

NORMAL SCHOOL NOTES.

THE State Normal School at San Jose has opened with an attendance in the normal department of five hundred and twelve students. The senior class numbers one hundred and twelve. The attendance is much larger than ever before, and the condition as to health and discipline is most satisfactory.

Miss Washburne has returned, after a year at Cornell University. Miss Adelie Murray, who has acted as her substitute for one year very acceptably, is working in the training school. Miss Titus, owing to impaired health, has obtained a leave of absence, and has gone on an excursion to Alaska and the north coast. Prof. Allen retains for the present the charge of both the San Jose and Los Angeles Normal Schools.

LOCATE THEM.

MUCH has been said in times past about conundrums in teachers' examinations. From quite an extended experience on boards of examination in different parts of the State, we have seen a few, and have frequently been led to sympathize with applicants for teachers' certificates as they wrestled with the unintelligible until doubt gave way to despair. It often happened, however, that the conundrum existed simply from ignorance; the conditions of the problem were laid a few stories above that to which the applicant had ascended. So, as in everything else, there are conundrums and conundrums.

Here is a question which we clip from one of our exchanges. It was given to a New England teacher, but was returned unanswered, with the statement that the ordinary geographies failed to give the desired information. Will some of our readers send us correct answers for our next issue.

"Locate the following inhabitants: Amphiscians, Antiscians, Ascians, Pericilians, Pericians, and Antipodes."

OFFICIAL DEPARTMENT.

SUPERINTENDENT FREDERICK M. CAMPBELL, EDITOR.

OFFICE OF STATE CONTROLLER,
SACRAMENTO, August 5, 1882.HON. FRED. M. CAMPBELL, *Superintendent Public Instruction.*

SIR—In compliance with an Act of the Legislature, I have the honor to report as follows:

The securities held in trust for the school fund by the State Treasurer consist of bonds of the State of California amounting to one million seven hundred and thirty-seven thousand five hundred dollars (\$1,737,500), together with bonds of different counties of this State, aggregating two hundred and fifty-one thousand nine hundred dollars (\$251,900), which are described as follows:

State Capitol Bonds, 1870—seven per cent.....	\$ 236,000 00
State Capitol Bonds, 1872—seven per cent.....	115,000 00
State Funded Debt Bonds, 1873—six per cent.....	1,386,500 00
	<hr/>
Humboldt County Bonds—nine per cent.....	\$25,000 00
Mendocino County Bonds—eight per cent.....	10,000 00
Napa County Bonds—seven per cent.....	60,000 00
Sacramento County Bonds—six per cent.....	26,400 00
San Luis Obispo County Bonds—ten per cent.....	10,000 00
San Luis Obispo County Bonds—eight per cent.....	50,000 00
Santa Barbara County Bonds—ten per cent.....	23,000 00
Solano County Bonds—seven per cent.....	10,000 00
Stanislaus County Bonds—eight per cent.....	9,000 00
Tehama County Bonds—eight per cent.....	11,500 00
Tulare County Bonds—ten per cent	20,000 00
	<hr/>
	251,900 00
Total securities held in trust for the School Fund.....	\$1,989,400 00

The money in the State treasury belonging to the State school fund, subject to apportionment, is three hundred and thirty-five thousand seven hundred and forty-seven and sixty-eight one-hundredths dollars (\$335,747.68), as follows:

Balance unapportioned February 20th, 1882.....	\$529 26
Amount subject to apportionment at close of thirty-third fiscal year, ending June 30th, 1882, received from the following sources :	
From property tax.....	\$112,743 22
From State poll tax.....	58,202 25
From interest on bonds held in trust.....	1,715 45
From interest on State school lands.....	25,806 80
	<hr/>
Amount received from the following sources since July 1st, subject to apportionment :	198,467 72
From property tax.....	\$13,787 43
From State poll tax.....	63,441 05
From interest on bonds held in trust	58,063 00
From interest on State school lands.....	1,363 32
From sale of geological survey reports.....	95 90
	<hr/>
Total amount subject to apportionment August 1st, 1882.....	\$335,747 68

Yours respectfully,

D. M. KENFIELD, Controller.

OFFICE STATE SUPERINTENDENT PUBLIC INSTRUCTION,
SACRAMENTO, August 7, 1882.

In accordance with the foregoing statement of the Controller, I have this day apportioned the State school money to the several counties as follows:

Total number of census children between five and seventeen years of age entitled to receive school money, 216,330; amount per child, \$1.55; amount apportioned, \$335,311.50.

Counties.	No. Children.	Amount.	Counties.	No. Children.	Amount.
Alameda.....	16,285	\$25,241 75	Sacramento.....	7,777	12,054 35
Alpine.....	86	133 30	San Benito.....	1,647	2,552 85
Amador.....	2,841	4,403 55	San Bernardino.....	2,661	4,124 55
Butte.....	3,954	6,128 70	San Diego.....	2,263	3,507 65
Calaveras.....	2,239	3,470 45	San Francisco.....	55,880	86,014 00
Colusa.....	3,228	5,003 40	San Joaquin.....	5,626	8,720 30
Contra Costa.....	3,455	5,355 25	San Luis Obispo.....	2,796	4,333 80
Del Norte.....	435	674 25	San Mateo.....	2,427	3,761 85
El Dorado.....	2,268	3,515 40	Santa Barbara.....	3,220	4,991 00
Fresno.....	2,770	4,293 50	Santa Clara.....	9,365	14,515 75
Humboldt.....	3,929	6,089 95	Santa Cruz.....	3,749	5,810 95
Inyo.....	519	804 45	Shasta.....	2,228	3,453 40
Kern.....	1,229	1,904 95	Sierra.....	1,178	1,825 90
Lake.....	1,535	2,379 25	Siskiyou.....	1,829	2,834 95
Lassen.....	861	1,334 55	Solano.....	4,985	7,726 75
Los Angeles.....	11,625	18,018 75	Sonoma.....	7,364	11,414 20
Marin.....	2,170	3,363 50	Stanislaus.....	2,085	3,231 75
Mariposa.....	987	1,529 85	Sutter.....	1,310	2,092 50
Mendocino.....	3,504	5,431 20	Tehama.....	2,548	3,949 40
Merced.....	1,337	2,072 35	Trinity.....	695	1,077 25
Modoc.....	1,130	1,751 50	Tulare.....	3,561	5,519 55
Mono.....	528	818 40	Tuolumne.....	1,687	2,614 85
Monterey.....	3,331	5,163 05	Ventura.....	1,517	2,351 35
Napa.....	3,310	5,130 50	Yolo.....	3,039	4,710 45
Nevada.....	5,970	7,858 50	Yuba.....	2,268	3,515 40
Placer.....	2,916	4,519 80			
Plumas.....	1,043	1,616 65	Total.....	216,330	\$335,311 50

FRED. M. CAMPBELL,

Superintendent of Public Instruction.

SCIENCE RECORD.

THIS RECORD is under the editorial charge of Prof. J. B. MCCHESENEY, to whom all communications in reference thereto must be addressed.

PROFESSOR SCHIFF, the Florentine vivisectionist, has used up more than 14,000 dogs in his experiments.

SETH GREEN says fish never sleep or close their eyes, and that the natural age of a trout is about fifteen years.

ELECTRIC lighting is in successful operation on more than sixty steamers of the Mississippi River and its tributaries. It is believed to add much to the safety of that kind of traffic and traveling.

COMPRESSED paper-pulp, better known under its old name of *papier-mache*, has been very successfully used, not only in the manufacture of doors, wall-panelings, and other similar purposes, but in many forms even more unexpected.

PAPER has gone into use in some of the restaurants in Berlin as plates for dry or semi-dry articles of food. There is no good reason why cheap paper cups properly glazed should not be employed at railroad stations, so that passengers could take a cup of coffee along with them instead of hastily drinking it at a lunch counter.

A MISTAKE is often made of making a boiler patch of thicker metal than that of the shell of the boiler needing it. A moment's reflection ought to show the absurdity of putting a five-sixteenth or three-eighth patch on an old one-quarter-inch shell; yet it is not so rare an occurrence as one would imagine. A piece of new iron three-sixteenths of an inch thick will, in most cases, be found to be stronger than that portion of a one-quarter-inch old plate-iron needing repairs.

PROFESSOR GUSSENBAUER of Prague over a year ago removed the larynx and epiglottis of a patient suffering from cancerous larynx, and supplied an artificial larynx and vocal cords. The patient is a riding teacher, the best in Prague, and is busy continually. He suffers neither inconvenience nor pain. His speech is perfectly intelligible, and he eats and drinks with facility. This is the best living example of what the art of the surgeon and mechanician can do for such a terrible disease as cancer of the larynx.

"GERMANY and Russia," says the *Pall Mall Gazette*, "are both pushing forward experiments in flying machines for use in war or otherwise. It appears that the direction in which these are working is the only one likely to be successful. It ignores the ridiculous inflated gas-bag, which is enormous in size, difficult and costly to fill in war, and floats, a gigantic derelict, at the mercy of every current of air—a huge mark for the first gunner who can hit and bring it to the ground. Baumgarten in Germany, and Baranovski in Russia, adopt the principle of the inclined plane pressed against the air, and thus capable of making some attempt at least to regulate its own course. In the kite the force that presses the inclined plane is the hand of the boy acting through the string. In the sail of the boat, the resistance of the water to sidelong motion keeps the sail pressed against the wind. In flying machines, the pressure is given by an engine carried by the machine, and acting by means of fans of one sort or the other. The difficulty at present is the weight of engine and fuel; but with the development of electrical practical knowledge, we may fairly expect to see accumulators which will supply the maximum of power with the minimum weight. Then the problem of flying in still air will be solved. Whether we shall ever be able to ride the storm is another matter."

M. A. LAVERAN has found, in the blood of patients suffering from malarial poisoning, parasite organisms, very definite in form, and most remarkable in character; motionless, cylindrical curved bodies, transparent and of delicate outlines, curved at the extremities; transparent, spherical forms, provided with fine filaments in rapid movement, which he believes to be animalcules; and spherical or irregular bodies, which appeared to be the "cadaveric" stage of these, all marked with pigment granules. He has also detected peculiar conditions in the blood itself. During the year that has passed since he first discovered these elements, M. Laveran has examined the blood in one hundred and ninety-two patients affected with various symptoms of malarial disease, and has found the organisms in one hundred and eighty of them; and he has convinced himself by numerous and repeated observations that they are not found in the blood of persons suffering from diseases that are not of malarial origin. In general, the parasitic bodies were found in the blood only at certain times—a little before and at the moment of the accession of the fever—and they rapidly disappeared under the influence of a quinine treatment. The addition of a minute quantity of a dilute solution of sulphate of quinine to a drop of blood sufficed to destroy the organisms. M. Laveran believes that the absence of the organisms in most of the cases (only twelve in the whole one hundred and ninety-two) in which he failed to find them was due to the patients having undergone a course of treatment with quinine.

NEWS RECORD.

Foreign and Domestic.

A second battle between the British and Egyptians resulted in the severe defeat of the latter.

Senator Ben Hill of Georgia is dead.

The Republican nominee for Governor of California is Morris M. Estee. His opponent is General George Stoneman.

Rear Admiral Nicholson has been instructed by the Navy Department to send vessels to Tunis and Tripoli to remove the consular records, and also to distribute the fleet all along the North African coast to protect American interests during the complications now impending.

General Grant and William Henry Trescott have been nominated to negotiate a treaty with Mexico.

The aggregate amount of appropriation bills passed by the present Congress is \$293,500,000, against \$216,695,000 last year.

In Egypt the British troops made an attack on Arabi Pasha's advance guard near Ramleh, and after an engagement of two hours withdrew, having accomplished the object of the reconnaissance.

There was a general stampede of the Egyptian troops and Arab population on the occupation of Suez by the British forces.

Said Pasha has assured Lord Dufferin that the Porte will proclaim Arabi Pasha a rebel.

A new French ministry has been formed, with M. Duclerc as president of the council and minister of foreign affairs.

Parliament adjourned Friday, Aug. 18th.

Mr. Gladstone states that an indefinite occupation of Egypt by England is not contemplated, and that the ultimate condition of the country could not be settled by any one power.

The Ladies' Land League of Ireland has been dissolved. The Irish Land League has changed its name to the "Land and Labor League of Great Britain."

The House of Lords has agreed to all the amendments of the House of Commons to the Arrears of Rent bill.

A new ministry is to be formed with Cherif Pasha as Premier.

It is understood that the international guard for the Suez Canal will not interfere with military operations.

The vessel conveying Lieutenant Bove and the members of the Italian Antarctic expedition was wrecked off Cape Horn, but all on board were saved.

Educational.

SPELLING REFORM ASSOCIATION.—The sixth annual meeting of the Spelling Reform Association was held at Harvard University, on the Thursday evening following the recent meeting of the American Philological Association. The annual reports and letters gave much to encourage the members present, showing as they did a deepening interest in the reform.

The most important work of the meeting was the adoption of a form of pledge proposed by the secretary, and after full discussion adopted by unanimous vote. This form is as follows :

SPELLING REFORM LEAGUE.

We, the undersigned, hereby agree to adopt for general use the simplified spellings indicated by the numbers following our respective names.

The numbers signify : I will —o. Give my name to be used in the list of advocates of the reform.

1. Use the simplified forms allowed by standard dictionaries ; e. g., *program*, *favor*, etc.

2. Use the Two Words, *tho*, *thru*.

3. Use the Ten Words, *tho*, *thru*, *gard*, *catalog*, *ar*, *giv*, *liv*, *hav*, *definit*, *wisht*.

4. Use the Two Rules (1) for *ph*, and (2) for *d* or *ed* final when sounded as *t* : e. g., *fantom*, *alfabet*, *filosofy*, *fixt*, *clast*, etc. (unless *e* affects preceding sound, as in *chased*).

5. Use the Five Rules. Rules (1) and (2) as in 4. (3) Drop silent *e* after a short vowel, as in *hav*, *liv*, *infinit*, *forbad*, etc. (4) When a word ends with a double letter, omit the last, as in *wil*, *clif*, *eg*, etc. (5) Drop *a* from digraph *ea* pronounst *e*, as in *hed*, *helth*, etc.

6. Use the Ten Rules of the S. R. A.

7. Use the Twenty Rules of the S. R. A.

8. Use all changes recommended by the American Philological Association.

9. Use complete phonetic spelling.

For details of steps 6 to 9, see special list, free to applicants. Signing binds to general use, but not to invariable use. Send signed pledge to be indexed for reference to Secretary of the International Spelling Reform Association, MELVILLE DUR, 32 Hawley Street, Boston.

It was agreed by the meeting that actual use of simplified spellings by educated people was vastly more important than mere argument against the folly of common

spelling. The Spelling Reform Association proposes to seek out every friend of its work, and urged the joining of the league. It will be noted that the steps are carefully graded. Each person signing the pledge writes a number after the name to show how much he agrees to do.

If he favors the reform, and is willing to say so publicly, but is not yet ready to agree to put it in actual use, he signs with a "0," which means that he agrees to do nothing. If he does not desire to go farther nor faster than the standard dictionaries like Webster and Worcester, he signs 1; i. e., he takes one step, and will spell program, traveler, favor, etc. To assist this class, Prof. C. P. G. Scott, of Columbia College, New York, was made a special committee to prepare for early publication a list of words of which a simplified form is already authorized by the standard dictionaries. He is already engaged on this work, and the list will appear later. Real reform begins at step No. 2, when *though* and *through* are shorn of their ample proportions. *Tho* and *thru* (or oftener *thro'*) are so much used already in poetry, business and ordinary correspondence, because of their brevity, that this is only a slight step, but it commits one to the movement. In the same way step No. 3 is limited to the famous *Ten Words* adopted by the American Philological Association.

The first rules affecting whole classes of words are chosen because of the general agreement of students on the changes. All the *ph's* to *f's* is simply going back to the original *f* of the Greeks, which we English have so long misrepresented by a *p* and an *h* that many seem to think these letters were in the Greek. All scholars familiar with Italian, Spanish, and the other languages, find the *f* as much pleasanter to the eye as it is briefer. The second rule, *t* for *d* and *ced*, is supported as being a reversion to old English and to poetical usage, and it will also help to banish such mispronunciations as a very *learnd* man, and the *wish-éd*, *guess-éd*, etc., of the poor foreigner doomed to stumble thru our English irregularities. Then come the *Five Rules* now adopted as well by the English Association, and including the previous step. The *Ten and Twenty Rules* are now being agreed on by the American and English association thru committees with full power. These will soon be printed, and will be the next steps toward completing the work begun by the Five Rules. At the meeting a majority of the philologists present signed No. 8; thus pledging themselves to use the new spelling as fast as approved by the American Philological Association.

The Spelling Reform Association directed the secretary to print and sell at a nominal price (30 cents per hundred) copies of these

pledges, with explanatory circulars, so that all interested might inclose them freely in letters.

Those interested in the full report may receive it when printed by applying to the treasurer. The action of the Philological Association during its sessions just closed did much to encourage the reformers. The English philologists formally asked the American Philological Association to unite with them in an authoritative list of simplified spelling. By unanimous vote, a select committee was authorized to agree on such a list, and adopt it in the name of the American scholars. This action has given new courage to all reformers, both in England and America.

The leading officers for the ensuing year are as follows:

President.—Francis A. March, LL.D., Lafayette College.

Secretary.—Melvil Dewey, A. M., manager, Library Bureau, 32 Hawley street, Boston.

Treasurer.—T. R. Vickroy, Ph. D., St. Louis, Mo.

Vice-Presidents.—W. D. Whitney, LL.D., Yale College; F. Max Müller, LL.D., University of Oxford, England; Rev. W. W. Skeat, A. M., University of Cambridge, England; Rev. A. H. Sayce, A. M., University of Oxford, England; F. J. Child, Ph. D., Harvard University; Hon. W. T. Harris, LL.D., Concord, Mass.; and many other prominent English and American scholars and educators.

The recently organized Scottish School-book Association has for its object to prepare and improve from time to time a complete system of school-books; and further, to promote the interests and protect the rights of its members.

The French conservatives threaten to withdraw the religious teachers from the public schools, in order to embarrass the Government in the execution of the new school law. They know that for several years to come the deficiency of lay teachers will necessitate the employment of monks and nuns. Of the 110,709 teachers employed in the elementary schools, 46,684 (9,468 males and 37,216 females) belong to religious orders.

Mrs. Garfield has become one of the trustees of Hiram College, the college in which President Garfield passed from studentship to professorship and presidency, and which in his after years he continued to love so well.

Thirty-three kindergartens are supported by Mrs. Shaw of Boston, at an annual expense of \$25,000. And these schools are mainly occupied with the training of children who otherwise would not be trained at all.

Senator Brown of Georgia has given \$50,000 to the State University at Athens. The interest of the money is to be used for the education of poor young men.

President Thayer, of Clark University, at Atlanta, expects to make a specialty of the school of domestic economy to be opened in the fall. The funds are already pledged for a cottage to be used as a *model home*.

THE DIXON PENCIL PRIZE AWARDS.—It is well known to all our readers that in January last the Dixon Crucible Co., Jersey City, N. J., manufacturers of the celebrated Dixon's American Graphite pencils, offered twelve cash prizes, amounting to \$275, for drawings made with their pencils by pupils of any American public or private school, or by any art student. The class of work was to be from the flat, from a cast or object, and from life. Competition was governed by the age of the pupil for all the prizes, with the single exception of the \$50 prize offered to art students; thus making an equitable provision for pupils of all ages and degrees of attainment in the art of drawing. The prizes ran from \$5 to \$50 each. There were no second prizes, honorable mention only being given to those who failed to take the prize offered for their respective class.

It was promised by the Dixon Company that the names of the winners of the prizes should be announced at one of the joint meetings of the two educational conventions to be held in Saratoga, N. Y., in July; and on Thursday, July 13th, by the kindness of the presiding officer, the following interesting report was made before a full house and a most appreciative audience:

The judges who decided upon the merits of the drawings submitted in competition for the Dixon prizes were: Miss Virginia Granberry, teacher of drawing in Packer Institute, Brooklyn, N. Y.; Prof. Louis Bail, teacher of drawing in the public schools of New Haven, Conn.; and Prof. George E. Gladwin, teacher of drawing in School of Technology, Worcester, Mass. These three were chosen, first, because of their large experience and well-known probity; and second, because none of their pupils entered in competition for any of the prizes. The judges met at the offices of the Dixon Company, and gave long and careful consideration upon the merits of each picture before making their decisions, and their faithful labors cannot be too highly appreciated by the Dixon Company, nor too highly respected by the competitors.

Two hundred and sixty-four drawings were sent in, representing twenty-two States.

The \$50 prize offered to art students for a drawing from life was awarded Miss

Mary Fairchild of St. Louis, Mo. Subject, human head.

The \$50 prize offered any school pupil over 20 years of age for a drawing from life was awarded Miss M. L. D. Watson, Morristown, N. J. Subject, female figure in costume. Honorable mention in this class was given Miss C. S. Cobb, Yonkers, N. Y.

The \$30 prize offered any school pupil not over 20 years old for a drawing from life was awarded Miss Carrie D. Bartlett, Titusville, Pa. Subject, female figure.

The \$25 prize offered any school pupil not over 18 years of age for a drawing from life was awarded Miss Agnes M. Watson, Philadelphia, Pa. Subject, drawing from nature. Honorable mention in this class was given Miss Emma S. Haslett, New York City.

The \$20 prize offered any school pupil not over 18 years of age for a drawing from a cast or object was awarded Miss Bonnie Stitt, Titusville, Pa. Honorable mention in this class was given Miss Juliet Fox, Titusville, Pa., and Miss Lizzie Probert, Erie, Pa.

The \$20 prize offered any school pupil not over 15 years old for a drawing from life was awarded Miss Clara B. Crossman, Swampscott, Mass.

The \$15 prize offered any school pupil not over 15 years old for a drawing from a cast or object was awarded Miss Susie H. Wallace, Titusville, Pa. Honorable mention in this class was made of Miss Edith W. Cadwaller, Titusville, Pa.

A prize of \$10 was awarded Miss Margaret J. Overton, Albany, N. Y., for an original design for a lace pattern.

A prize of \$10 was awarded Miss Bessie Grindrod, Albany, N. Y., for an original design for a panel.

The \$10 prize offered any school pupil for a drawing from the flat was awarded Miss Frederika L. Woltjen, Pottsville, Pa. Honorable mention in this class was given Miss E. Gertie Walker, Windsor, Vt.; Miss Mary R. Sweet, Hyde Park, Mass.; and Miss Georgia M. McClellan, Lexington, Ky.

The prize of \$5 offered any school pupil not over 12 years old for a drawing from the flat was awarded Master Percy Nicholson, Albany, N. Y. Honorable mention in this class was made of Masters John Brady, Albany, N. Y.; Jacob B. Lamey, Wiconisco, Pa.; and Harry Finck, Ridley Park, Pa.

The \$25 prize offered any school pupil not over 20 years of age for a drawing from life was not awarded—no drawing being sent in for that class.

It will be noted that ten of the eleven prizes were awarded young ladies.

We learn that the Dixon Pencil Company propose to repeat this prize drawing award next season.

Walter H. Smith, so long director of the Normal Art School of Massachusetts, has been dismissed by the State Board of Education. It has been evident for some time that Mr. Smith's usefulness had come to an end, but his ability kept him in position. He has ability, but lacks tact and discretion.

We learn with profound regret of the sudden death of Jeremiah Mahony, in Chicago, on the 24th ult. His death was caused by an overdose of morphine, taken for relieving pain. His latest editorial work was that on the *Educational Weekly*, to which his pungent and racy pen added for a time a strong personal flavor. He was for many years principal of one of the Chicago schools, and was a man of brilliant abilities.

Personal.

A direct descendant of Peregrine White (the first child born in the Plymouth Colony), Milo White, has been nominated to succeed Mr. Dunnell of Minnesota in Congress.

It will be twenty-three years in December next since the soul of old John Brown commenced "marching on." We are reminded of the occurrence by seeing announced in a San Francisco paper that Miss Sarah Brown, a daughter of the famous old J. B., has been appointed to a position in the adjuster's department of the Branch Mint in San Francisco, which was voluntarily offered her by Superintendent Burton. Her home is in Saratoga, Santa Clara County, California. John Brown, the oldest son, a man of sixty, strong and vigorous, lives at Put-in-Bay, Lake Erie. With him resides Owen Brown, a younger son, who was with his father when the latter made his attack on Harper's Ferry. A daughter named Ruth Thompson lives near by, and another son, Jason, resides at Akron, Ohio. Mrs. Brown lives in California.

Sir John Lubbock, the scientist, and greatest living authority on ants, is a banker; and so was his father, who was also quite a remarkable astronomer. Sir John is a member of Parliament, has a bright face and keen eye, and wears his learning as lightly as a flower.

In a little red cottage on the shore of a lake called The Bowl, near Lenox, Massachusetts, Hawthorne wrote "The House of the Seven Gables." Mr. J. T. Fields used to tell of carrying out to him there a hundred dollars in advance of work; but after accepting, Hawthorne's sensitiveness found the obligation irksome, and he handed it back. "Take it, Fields," he said, "the house isn't big enough to hold it."

It is said that Mark Twain pretended to care very little about his first baby; but when his wife discovered him one day making much of it, she said: "Confess, now, that you do love the baby." Mark replied, "I won't do that; but I confess that I respect the little thing for its father's sake."

"How long," asked Governor Coburn, in a recent oration at Wabash College, "under the theory of evolution, will it take Harriet Beecher Stowe to become as capable a voter as an emancipated slave?"

"God Save the King" was written for the Stuarts, and not for the Brunswicks, by Father Petre, S. J., King James's confessor, as it is announced by Mr. Harford, minor canon of Westminster Abby.

When Miss Todd became engaged to Abraham Lincoln, she wrote to a daughter of Governor Wickliffe of Kentucky: "I mean to make him President of the United States; as I always told you, I will yet be the President's wife." This letter is now the property of General Preston of Lexington, Kentucky.

General Notes.

A great sensation is agitating the colony of Melbourne. The Bishop was some time ago asked to write a special form of prayer for rain, a severe drouth having been experienced through his whole diocese. He refused point blank, to the consternation of his people, giving as a reason that changes in the weather were the result of natural laws, and that prayer was intended to secure spiritual not material good. If people, he said, would set to work to utilize the water now running to waste into the sea, it would be more sensible than praying to be delivered from the results of their own neglect. As the bishop is the author of a national system of irrigation, rejected by Melbourne officials, his manifesto is regarded as having a personal bearing; but personal or impersonal, the sensation remains.

The Emperor of Russia has signed a decree regulating the liquor traffic of Russia in the most stringent manner. But one liquor shop is to be allowed to a village, and if two or three villages are near together, one shop must serve for all. The keeper of it must be a native of the village, appointed and paid by the Common Council, and must also sell food. He is liable not only to dismissal, but to fine and imprisonment, if he allows any one to get drunk; and if a village is reported as too much addicted to liquor, its sale is to be forbidden for such time as may seem necessary.

EXAMINATION QUESTIONS.

SPENCER ON EDUCATION (SAN FRANCISCO COUNTY).

Time, 1 hour. 7 Questions. 10 Credits each.

1. What is Spencer's answer to the question, "What knowledge is of most worth?"
2. In the education of the child, which should come first, the particular or the general? the concrete or the abstract?
3. Show how Spencer's rule in relation to the foregoing (question 2) is constantly violated in our schools.
4. What is Spencer's maxim in reference to leading children to make their own investigations?
5. What is the great test by which we may judge of the success of our teaching?
6. What should be the great aim of the discipline of teachers and parents?
7. What is the greatest benefit to be derived from the study of history?

GRAMMAR (SAN FRANCISCO COUNTY).

Time, 2 hours. 10 Questions. 5 Credits each.

1. (a) What class of verbs take the same case after them as before them? Illustrate.
(b) When is *to*, the sign of the infinitive, omitted?
2. This candidate, *whom* we stated was chosen *mayor*, *was found* to be *ineligible*.
Correct and parse the underlined words.
3. (a) What tenses of what moods can be formed without auxiliaries?
(b) Define subjunctive mood; potential mood.
4. Analyze: The men whom men respect, the women whom women approve, are the men and women who bless their species.
5. (a) What are the different uses of the adverb? Illustrate.
(b) How are adverbs compared?
6. Write a sentence containing a participle used as a noun, modified by an adverb and a noun in the objective case. A sentence containing two nouns denoting joint possessions. A sentence with two nouns denoting separate possession. A sentence containing an infinitive with the

construction of an adjective. Give the participles of *choose*.

7. Write in tabular form the principal parts of the following verbs, giving both forms if there are two: *thrust*, *dive*, *load*, *set*, *chide*, *seethe*, *quit*, *rid*, *weave*, *stride*.
 8. Write the plural of *vertebra*, *Mr. Jones*, *two*, *genius*, *cicatrix*, *billet-doux*.
The feminine of *ogre*, *testator*, *marquis*, *equestrian*.
 9. Correct and give reasons:
(a) The wisest man who ever lived made mistakes.
(b) The selfish and the benevolent are found in every community; these are shunned, while those are sought after.
(c) John's father died before he was born.
(d) Metal types were now introduced, which before this time had been made of wood.
(e) A good place to see a play is at the theater.
 10. What different parts of speech may *as*, *but*, *like*, *that* be? Give illustrations to *but*, *that*.
- COMPOUND NUMBERS AND REDUCTION. (Prepared for the JOURNAL.)
1. What will be the cost of carpeting a room $24\frac{1}{2}$ feet long, 18 feet wide, with carpet 27 inches wide, costing \$1.40 per yard?
 2. A city block is 300 feet by 200 feet. What will be the cost of 2-inch plank at \$18.50 per M. sufficient to lay a sidewalk 4 feet wide around the block, the inner edge of the sidewalk being 4 feet from the fence?
 3. Bought 4 barrels of vinegar at \$4.50 per barrel, and sold it at 5 cents per pint; did I make or lose, and how much?
 4. What will be the cost of digging a cellar 40 feet long, 25 feet wide, and $9\frac{1}{2}$ feet deep, at 90 cents per cubic yard?
 5. What must I pay for a pile of wood 80 feet long, 6 feet wide, and 8 feet high, at \$8.75 per cord?
 6. How many seconds from January 15th, at 15 minutes past 2 o'clock P. M., to August 3rd, 10 minutes before 11 o'clock A. M., in the present year?

7. What must I pay to fence a field $40\frac{1}{2}$ rods long, 28 rods wide, at $\frac{1}{4}$ a cent per foot?

8. What will be the cost of plastering a room 19 feet long, 15 feet wide, and $10\frac{1}{2}$ feet high, at 95 cents per square yard?

9. I was 4 hours 53 minutes 20 seconds in walking a certain distance by stepping a yard each second; how far did I walk?

10. What will be the cost of fencing a township of land 6 miles square into quarter-sections, the fence being worth $1\frac{1}{2}$ cents per running foot?

HISTORY.*

1. Describe briefly the voyages of the Cabots; of Ponce de Leon; of de Balboa; of Verazzani.

2. Give the dates and short accounts of the settlements of Rhode Island and Maryland.

3. What great defeats were suffered and what great success achieved by the British in the French and Indian War?

4. Name the principal events from 1765 to 1775. When and where did the Second Colonial Congress meet?

5. State the object of Burgoyne's Campaign, and its result. Who succeeded General Lincoln in the South? Give a brief account of the first battle of Camden.

6. What celebrated grant of territory was made to the United States in 1787? What great territory was purchased in 1802? What were the boundaries of the latter territory? What territory was acquired at the close of the Mexican War?

7. What political difficulties arose in consequence of the admission of Missouri into the Union? How were they settled?

8. Name the presidential candidates of 1860. Which was successful? What was the effect of his election upon the people of the South? Name the principal military events of 1861.

9. What advantage did Lee take of the raising of the siege of Richmond in 1862? What battle occurred near Washington soon after, and with what result?

10. Describe Lee's second northern invasion. What great battle checked it?

GEOGRAPHY.*

1. Prove in three ways that the earth is a sphere. Which is the longer, the polar or the equatorial diameter of the earth? What is the difference?

2. What is the inclination of the earth's axis? The width of the Frigid Zone? The North Temperate Zone?

3. From what circle is longitude reckoned? From what latitude? What do latitude and longitude determine?

4. Bound Nevada, Tennessee, and New Hampshire, and state the capital of each. Name the three Territories that surround the Yellow Stone Park.

5. Name the kingdoms, empires, and republics of Europe, and the capital of each. Bound Spain, and name four of its largest cities and four of its longest rivers. Name the mountain chains of Europe.

6. Name six of the principal rivers of Asia. Name the great bodies of water that border on the Asiatic coast.

7. Through what bodies of water would a ship sail in going from Bombay to Constantinople?

8. From what country do the Andes separate the Argentine Republic? In what country does the Parana rise? What countries does it in part separate? Through what country does it then flow? What river unites with it near its mouth? What is the river formed by the two called?

9. Where is Cape Trafalgar? Finisterre? Land's End? Race? Fear?

10. Tell accurately the position of the following cities: San Francisco, Milwaukee, Columbia, Pittsburg, Mobile.

SPELLING.*

The conditions of the peace dictated by Scipio to the Carthaginians were: that the Carthaginians should continue free, and preserve their laws, their territories, and the cities they possessed in Africa before the war; that they should deliver up to the Romans all deserters, slaves, and prisoners belonging to them; all their ships except ten galleys; all the elephants which they had, and that they should not train up any

* These questions were proposed to candidates for the College of the City of New York and Normal College, in June, 1882.

more for war; that they should not make war out of Africa, nor even in that country, without first obtaining leave for that purpose from the Roman people; should restore to the King of Numidia everything of which they had dispossessed either him or his ancestors; should furnish money and corn to the Roman auxiliaries till their ambassadors should be returned from Rome; should pay to the Romans ten thousand

talents of silver in fifty annual payments; and give a hundred hostages who should be nominated by Scipio.

Maine,	Bordeaux,	Mocha,
Massachusetts,	Venice,	Mecca,
Connecticut,	Genoa,	Cairo,
Alabama,	Vienna,	Calcutta,
Pennsylvania,	Brussels,	Melbourne,
California,	Hague,	Madras,
Illinois,	Geneva.	

EDUCATIONAL INTELLIGENCE.

ALAMEDA COUNTY.—Special tax levies have been voted by the people of Centerville and Alvarado for the purpose of building additional rooms to the school-houses, in order to accommodate the growing population. There will be an additional teacher in each place.

C. H. Clement, recently of the West Berkeley Grammar School, has resigned his position to enter the employ of A. L. Bancroft & Co. Mr. Clement was for a short time superintendent of Oakland. He is an admirable teacher, and the profession suffers a decided loss in his withdrawal.

Mr. Horton, assistant in Alameda High School, has been elected to the principalship of the West Berkeley Grammar School. His successor in Alameda is Mr. C. W. Kellogg of Santa Clara.

WASHINGTON TERRITORY.—Prof. A. J. Anderson, formerly of the University of Washington Territory, leaves Seattle for the presidency of the Whitman College and Seminary, at Walla Walla. By aid of prominent citizens, the trustees have been enabled to secure a faculty of teachers of successful experience, and from the same source hope to be able to add to the faculty and erect new buildings. Prof. Anderson's successor is the Hon. L. J. Powell, formerly State Superintendent of Oregon.

STATE OF NEVADA.—The Republican State Convention a few days ago placed in nomination for the State superintendency Prof. C. S. Young of Gold Hill, the best man in the State for the position. Prof.

Young has been principal of the high school, city superintendent, and is an educator in the broadest and best sense of the term. We believe he will be elected by a large majority; we know he should be. Nevada teachers should see to it that there is no failure in this matter. If they permit so good a man as Prof. Young to be beaten by any political machinations, they deserve to be reduced to salaries that would buy a sage-brush diet for the rest of their natural lives.

SONOMA COUNTY.—The Republican nominee for superintendent of this county is Mr. James Faulkner, a good man. He hope, however, and firmly believe, that Prof. C. S. Smyth, the present incumbent, will be re-elected by a large majority. Superintendent Smyth deserves this recognition at the hands of his constituency. He has been and is one of the most faithful, most efficient superintendents of the State. No political considerations should enter into the question of the choice of such a man. Republicans and Democrats alike should give him their hearty support.

We see on the Republican ticket of this county, nominated for the office of county clerk, the name of ex-Superintendent E. W. Davis. Here is another man whose public services and private character entitle him to the gratitude and active support of all good men, irrespective of party. In whatever position he has occupied, Mr. Davis has always served the people well. He is intelligent, honest, and energetic. He should be elected, for he will serve the people well.

SANTA BARBARA COUNTY.—The present efficient and popular superintendent of schools, G. E. Thurmond, has been renominated, and will, we trust, be re-elected. Mr. Thurmond has, during his administration, placed the schools of this beautiful section of the State on an equality with those of any other section. We understand that Mr. Thurmond has the hearty support of his teachers and school officers, who will doubtless give him their cordial assistance at the election.

A lady, Miss Dorcas Wheelock, an excellent teacher, is the Republican nominee in this county.

COLUSA COUNTY.—W. H. Reardon of College City is the Republican nominee for superintendent of schools in this city. We have known Mr. Reardon for some years as an excellent teacher, one of the representative educators of his section of the State. We fear Mr. Reardon's chances for election in Colusa are not very good, but regret that it is so.

There is considerable activity in educational matters in this county. No less than four new school-houses are now being erected, the least expensive costing \$2,800.

A high-school building for Colusa is going up at an expense of \$8,000. Maxwell District is expending an equal amount for a school-house. At College City a new building will cost \$3,000, and at Bridgport \$2,800 have been expended for a building.

LOS ANGELES COUNTY.—The Los Angeles Normal School building was dedicated Sept. 9th. The faculty, elected on June 1st, 1882, are Charles H. Allen, principal of the schools at San Jose and Los Angeles; C. J. Flatt, vice-principal; Miss Emma L. Hawks, preceptress; and J. W. Redway. The trustees of the Normal Schools are George C. Perkins, Governor, and Fred. M. Campbell, State Superintendent of Public Instruction, *ex-officio*: A. S. Evans and T. Ellard Beans of San Jose; James Denman of San Francisco; O. W. Childs of Los Angeles; and Ralph Lowe of New Almaden, Santa Clara County. Professor Charles H. Allen is secretary of the board. The exercises began that afternoon at 2 o'clock with the following programme: Anthem, "Great God, to Thee," quartet; prayer, Rev. J. W. Ellis; opening address,

Lieutenant-Governor Mansfield; music by pupils of the school; address, Governor George C. Perkins; response, Prof. C. J. Flatt; address, Supt. F. M. Campbell; music, singing section of the Turn Verein Germania; address, General Stoneman; address, R. Del Valle; report, J. R. Brierly; benediction, Rabbi A. W. Edelman. The assembly hall was crowded with ladies and gentlemen, while upon the rostrum were many of the representative citizens of the city and county, as well as distinguished friends from abroad.

SACRAMENTO COUNTY.—C. B. Bishop, the present faithful superintendent, has been renominated in this county. We believe there is no doubt of his re-election.

EL DORADO COUNTY.—One of the most pleasant items we chronicle this month is the unanimous renomination of Supt. C. E. Markham of this county. Mr. Markham is a courteous gentleman and an efficient superintendent. He should be re-elected by an overwhelming majority, and we are confident he will be.

SAN LUIS OBISPO COUNTY.—The Republican nominee for superintendent of this county is Mr. C. H. Woods, of whom the JOURNAL has already spoken as a cultured gentleman and an able teacher. Mr. Woods will, if elected, make a good superintendent. It is greatly to be regretted, however, that the Republicans of this county did not prove the sincerity of their professions in favor of civil service reform, by continuing in this office that faithful public servant and highly competent superintendent, the present incumbent, Mr. John F. Beckett.

FRESNO COUNTY.—Two excellent nominations by the Democratic convention of this county, both of whom should be elected, are Prof. B. A. Hawkins as school superintendent to succeed Mr. Bramlet, and Mr. Bramlet for auditor. Prof. Hawkins is well known to us as a successful teacher. Supt. Bramlet has already served two or three terms as superintendent and auditor combined. Now that the offices are separated, he will doubtless be elected to the more lucrative position of auditor.

STATE OF OREGON.—At the recent election in Oregon, Prof. E. B. McElroy of Corvallis was elected State Superintendent

of Public Instruction. Prof. McElroy is one of the most progressive educators in that State, and has already served several terms as county superintendent.

Dr. F. J. Powell, recently State Superintendent of Oregon, has been elected president of the University of Washington Territory at Seattle. Dr. Powell, whom we have personally met, is an able and progressive educator.

SANTA CLARA COUNTY.—Supt. L. J. Chipman is a candidate for re-election in this county. Mr. Chipman has already served two terms, and we know the people will choose him again. He has made one of the best of our county superintendents, and Santa Clara schools, under his supervision, rank among the best in the State.

Ex-Superintendent A. W. Oliver has left the profession of teaching, and with his family proposes in a few weeks to make his

home in Oregon. Prof. Oliver's resolution we consider a great loss to the profession, as he has always ranked among our most scholarly and ablest teachers.

SIERRA COUNTY.—At the Republican convention in Sierra County, held July 27, J. S. Wixson, present incumbent, was nominated for the county superintendency. He is a native of New York, educated at Alfred University; came to California in 1874, and has since been teaching in Plumas and Sierra Counties; and is now the principal of the Sierra City School. Mr. Wixson has held the position of county superintendent five years, and is now nominated for re-election for a term of four years. He is spoken of very highly by those who have been brought in contact with him in his duties as teacher and superintendent, and Sierra County will be wise in re-electing one who has already proved faithful.

BOOK NOTICES.

McNALLY'S SYSTEM OF GEOGRAPHY. For Schools, Academies, and Seminaries. Revised by James Monteith and S. T. Frost, and including Frost's "Geography Outside of Text-books." New York and Chicago: A. S. Barnes & Co.

This is one of the most admirable textbooks for common school classes that has thus far been submitted to public judgment. Its merits are manifold.

It is not a padded book, but contains in its 141 quarto pages all the geography any school can teach, and much more than students usually learn.

What is most valuable in general geography, outside of the accurate and minute knowledge which children should possess of their own local habitations, is what can be associated with incidents of travel, history, and literature.

Geography properly taught, and with a good text-book, will be found one of the most fascinating of studies.

We are satisfied this book "fills the bill" as a model geography.

The matter on every page is divided into

two sections by a heavy black line. Above the line is the usual subject-matter for daily lessons. Below are facts of commercial, political, historical, and physical geography, abundant references to literature, and facts of general interest—all forming the "geography outside of text-books," a distinguishing and charming feature of the book.

This portion of the book may be used by teachers as topics for compositions, and for supplementary reading.

The texts for daily work are clearly and briefly stated. Important points are brought out by differences in type; and the illustrations, maps, etc., are in keeping with the uniform excellence of every other part of the book.

An unusually large number of questions for reviews marks each division of work; and added to the general review are tables of population of the largest cities, height of important mountains, length of rivers, names of counties of each State and Territory, and a pronouncing vocabulary.

The price of the book for examination is

\$1.15. We recommend teachers to get a copy. It will well repay examination, and will be found useful on the teacher's desk in connection with almost any series of text-books.

A **LATIN READER**, with Notes and a Lexicon. By George Stuart, A. M., Professor of Latin, Central High School. Philadelphia: Eldredge & Bro. Price. \$1.00. To teachers for examination, 60 cents. For sale by A. L. Bancroft & Co., 721 Market Street.

A **FIRST LATIN BOOK**, with Notes and a Lexicon. By George Stuart, A. M., Professor of Latin, Central High School, Philadelphia: Eldredge & Bro. Price. \$1.00. To teachers for examination, 60 cents. For sale by A. L. Bancroft & Co., 721 Market Street.

In the making of school-books, the conductor's motto of "always room for one more" evidently is the established rule. Or perhaps it is Daniel Webster's maxim, that "there's always room up-stairs."

In the second of the books above noted, we can find no distinguishing marks which would entitle it to a very exalted position. The book is good, but we find nothing especially new either in matter or arrangement. Good points are the vocabularies, the fact that about every phrase or sentence is from some Latin author, and the excellent typographical presentation, whereby important points are clearly placed before the learner.

The Reader is somewhat superior to the Grammar. Excellent taste, and the good judgment of what undoubtedly is the practical experience of a successful teacher, have made up of a well-graded book, consisting first of twenty-five easy Aesop Fables; second, twenty-five anecdotes from Luttmann's Latin Reader; third, fifteen legends of the Heroic Age; and sketches of eight distinguished Romans. We like the notes and vocabularies, taking up about one-half the book, which must unquestionably be classed as a positive addition to the most valuable of our Latin text-books.

Typographically, and in binding, etc., the books would reflect credit on any publishing house in the country.

A **TEXT-BOOK ON ENGLISH LITERATURE**, with Copious Extracts from the Leading Authors, American and English. By Brainerd Kellogg, A. M. Clark & Maynard, Publishers. 1882.

This book is one of a class which aims to bring author and pupil in close contact. Until quite recently a study of English and American literature meant a study of the biographies of authors, with a list of their works. If a student could rattle off the more prominent facts in the life of Shakespeare, and repeat a list of his plays, he was considered a fine Shakespearian scholar, although, for all his examination papers indicated, he had never read a single one of his works.

Fortunately for those who are now receiving an education in our schools, all this is changed. Instead of taking a knowledge of an author's work second-hand, they are introduced to them directly; instead of considering what some one has said about a piece of literary composition, the student is gradually led to an intelligent understanding of it by careful study. They are thus enabled, in time, to take an independent view of an author's productions, and, it is hoped, with this appreciation of excellencies and defects, aid somewhat in discouraging the wholesale production of so much that is unworthy and vile in modern literature.

The book before us contains one feature which we cannot too highly commend—a scheme for studying an author. This is particularly valuable to those teachers who are inexperienced in instructing classes in literature. As a whole, the book merits our warm approval, and we commend it to the consideration of those who are looking for a good class-book on English literature.

THE SYSTEM OF MENTAL PHILOSOPHY.
By Asa Mahan, D. D., LL. D. Chicago: S. C. Griggs & Co. San Francisco: A. L. Bancroft & Co.

While this book has some merits in the manner of arrangement, we cannot on the whole consider it a satisfactory book.

The order of classification adopted by the author—the intellect, the will, and the sensibilities—though differing from the order with which we are familiar through Bain and others, strikes us as excellent, if not preferable.

The great defect of the book is the strong theological bias which marks every division, more especially those devoted to the sensibilities. The writer certainly lacks the true

scientific spirit, inasmuch as his conclusions are ready made before he approaches them through the avenue of investigation and reason. This unscientific spirit is shown, notably, in making a division on the Religious Propensities. Whereas, even the tyro in mental science knows that these propensities are not original faculties of the human mind, but the result of the action of faculties already analyzed and described.

On the whole, we cannot consider the book any special acquisition to the field it proposes to occupy.

A CHANCE ACQUAINTANCE. THEIR WEDDING JOURNEY. By W. D. Howells. Boston : Houghton, Mifflin & Co. San Francisco : A. L. Bancroft & Co. Paper. Price, 50 cents each.

These two delightful stories, by the first of American prose writers, are republished in a cheap form for summer reading. They are just the thing for the steamer, or the cars, or the summer resort, whiling away the idle hour very pleasantly.

BANCROFT'S CHARTS OF GEOGRAPHY, HISTORY, AND PHYSIOLOGY. By Prof. C. W. Childs, of the California State Normal School. San Francisco : A. L. Bancroft & Co., Publishers. Price, with Manual, \$10.

These charts have already had a reference in the columns of the *JOURNAL*; but a more extended description of their merits is reserved for this notice.

Each of these charts comprises the subject-matter of the course required to be taught in our public schools.

The matter is topically arranged, topics and points only being given, so that text-books are not discarded, but their proper use taught and practiced. On the Geographical Chart is suggested an outline of work, the intelligent performance of which will enable the teacher to give a full and accurate acquaintance with important geographical knowledge. The Physiology and History Charts follow the same plan of presenting the subject by topics.

The great value of the charts to both teachers and pupils will be found in this, the teacher has bodily before his eye the *point* of each daily lesson. Towards that point he directs his questions; around it are grouped his illustrations. It matters not what text-books he uses, he can see that they are merely the books wherein are elab-

orated the texts presented on the charts. They pin him down, as it were, to the salient points of the subject; and when the course in history, geography, and physiology has been finished, the charts furnish the most suggestive means for the general review.

Accompanying the charts is a manual full of hints and suggestions for their proper use.

Books of reference are pointed out, methods of study suggested, and the teacher is clearly shown how the charts may be most advantageously, and how the subjects may be most effectively, taught.

We heartily recommend these new school aids to the attention of teachers and trustees. If schools are not already supplied with them, they should at once secure a set. They belong side by side with the Webster's Dictionary, the wall maps, as a part of the indispensable apparatus of the district school.

L. L. L.; OR, FIFTY LAW LESSONS. Embracing all the Technical points of Business Law. By Arthur B. Clark. New York : D. Appleton & Co. San Francisco : J. T. White & Co., 23 Dupont Street, Agency D. Appleton & Co.

This is a useful little book of 200 pages, not intended for common schools, but well adapted for high schools, academies, and business colleges.

It is a book which teachers, too, would find especially valuable, as a constant reference to settle authoritatively those questions which are so constantly put to them in their daily work.

The book is well constructed for school-room use. The lessons are short, and at the end of each are questions on the text. The style is clear, and the principles stated may easily be comprehended. Illustrative examples are numerous, and are given in smaller type.

It is scarcely necessary to note the mechanical excellence of the book, as all publications issued from the house of D. Appleton & Co. are marked by the highest excellence modern workmanship and art can secure.

ELEMENTS OF ALGEBRA. By G. A. Wentworth, A. M., Professor of Mathematics in Phillips Exeter Academy. Boston : Ginn, Heath & Co. For sale by all booksellers.

When Prof. Wentworth's Geometry appeared about two years ago, a new era was marked in the teaching of mathematics. The text-book on Algebra before us, like the Geometry, keeps in view the same ends, and is framed on the same general ideas.

He evidently holds that an Algebra is a book every preceding part of which should whet the interest of the reader, and give him power to comprehend and master what follows.

There are two editions of this Algebra: one of 350 pages, containing the elementary part, and designed for high schools and academies; and the second (the one before us) of 500 pages. The last one hundred and fifty pages consist of such principles as belong to work within the province of the college or university.

Prof. Wentworth has given us here an admirable text-book. His method of presentation is clear, the arrangement of his work attractive, definitions brief, and the illustrations ample.

The examples for practice number four thousand, showing that the author believes, with other advanced educators, that practice is the key-note to the mastery of mathematical truths.

We note these special points of merit in this book: Processes come first; from these rules are deduced, not to be memorized, but to aid the students in framing their own rules. Particular attention is paid to factoring. A thorough mastery of the handling of this topic will do much good towards smoothing the learner's path in his further progress in the science. Common Factors and Multiples are exhaustively treated. Logarithms are explained and illustrated with great clearness and fullness. The chapters on *Choice* and *Chance* are based on Whitworth's treatise, and are admirable in their treatment.

We predict for this work a great success.

LITERARY NOTES.

The numbers of *The Living Age* for August 12th and 19th contain: American Society in American Fiction, *Edinburgh Review*; The Turning-Point of the Middle Ages, *Contemporary*; With the Emigrants, and Muhammad and His Teaching, *Nineteenth Century*; French Prisons and Convict Establishments, and A Deserted Garden, *Cornhill*:

The Crimes of Colonization, *Pall Mall*; Alexandria, *Saturday Review*; Reminiscences of a Visit to Sir John Franklin, *Chambers' Journal*; Dickens as a Dramatist, *Spectator*; with installments of Robin, A Hansom Amateur, The Ladies Lindores, A Cat's Paw, and George Considine, and selections of poetry.

Among the special features of the September *Century* are a charming paper (by Mr. W. D. Howells) on the Humorist and his American Rivals; a vigorously critical review of the war in Egypt, by General George B. McClellan, with a forecast of its probable results; an important paper by Austin Dobson, the poet, on Bewick, the great wood-engraver; a biographical sketch of the late Dante Gabriel Rossetti, by his friend, Edmund W. Gosse, with a portrait; a humorous short story, *The Col. Bill Williams Mine*, by Joaquin Miller; a sketch of the development of ocean steamships, illustrated; E. V. Smalley's second paper on The New Northwest, accompanied by a map; a beautiful portrait, engraved by Cole, of the American lady who was the original of Rebecca in *Ivanhoe*, with a sketch of her life and her relation to the novel; an illustrated travel article on Ningpo and the Buddhist Temples, by Constance Gordon-Cumming; a sketch of The Academic Career of ex-President Woolsey, by George P. Fisher, with portraits engraved by Cole and Shussler, of the bust by St. Gaudens, and the statue by Weir, and a reproduction of the gold medal recently presented to Dr. Woolsey by the professors of Yale; an illustrated paper on A Maine Coast Town, by Noah Brooks; practical hints on Going Abroad for an Education; editorials on Darwin's Attitude toward Religion; The Courtesies of Travel, and Herbert Spencer in America; serial novels, poetry, book notices, *vers de société*, dialect humor, new inventions, etc.

The September *Atlantic* contains: Two on a Tower, by Thomas Hardy; Darkness, by Julia C. R. Dorr; American History of the Stage, by R. Fellow; Evil in Greek Mythology, by Elizabeth Robins; Doctor Zay, by Elizabeth Stuart Phelps; A Geologic Ramble on the Weald, by M. D. Conway; Studies in the South (VII.); Tears of Isis, by Frances L. Mace; The Nation of the Willows (I.), by F. H. Cushing; The House of a Merchant Prince (XVII., XVIII.), by William Henry Bishop; The Last Chance of the Confederacy, by Alexander C. McClurg; etc.

The *Harper* for September contains: An Antwerp Printing-house, by Rose G. Kingsley, illustrated; Fairy Gold, a story, illustrated; At War, by Louise Chandler Moulton; Through Great Britain on a Drag, by Octave Thanet; Animal Electricians, by C. F. Holder; Guy's Legacy, a story, by William O. Stoddard; The Milky Way, by G. D. L.; Invading the Temple of Heaven, by Charles Wood; Round about the Peaks of Otter, by A. Granville Bradley; Interchange, by Mary B. Dodge; Songs that have made History, by Amelia E. Barr; Mrs. Wetherell's Mistake, a story, by Edwin Lassetter Byner.

With September comes the end of vacation, and thoughts of school; and *St. Nicholas* comes too,

evidently determined to make these by no means the least pleasant of the summer days. It is a bright, sketchy number, filled with short stories, clever verses, and beautiful pictures. Girls will be interested in The Doll that Couldn't Spell her Name, and the boys will read with pleasure the story of The Marlborough Sands; and both boys and girls will enjoy everything else in the magazine.

There is an instructive and amusing article on elephants, entitled Our Largest Friends. Jiro, a Japanese Boy, is a sketch of boy-life in that curious country where every one's birthday comes on the same day; and Maurice Thompson, the celebrated archer, contributes The Story of the Arbalist, or Cross-bow. The Stories from the Northern Myths end in this issue, with an account of the slaying of Balder, the God of the Summer; and Mrs. Clement's paper on the Art and Artists of the Renaissance is especially bright and anecdotal. Mrs. Dodge has a long and very interesting installment of her serial, Donald and Dorothy, which will be eagerly read by all who have been following the fortunes of these two young people.

Among all the verses scattered through the September pages, it is enough to mention the poem entitled The Cockatoos, by Celia Thaxter, and The Land of Noddy, a quaint, pretty, unconventional lullaby, by Rossiter Johnson. There are the usual departments, and an entertaining story for the little folks of a pig that went sailing in a horse-trough.

The North American Review for September has for its leading article a very forcible presentment, by Dorman B. Eaton, of the evils produced by the practice of levying "Political Assessments." Oaths in Legal Proceedings, by Judge Edward A. Thomas, is a discussion of the question, whether the interests of morality and of public justice alike would not be promoted by the abrogation of all laws requiring testimony to be given under the sanction of an oath. Thompson B. Maury, late of the Signal Office, contributes an article on Tornadoes and their Causes. Architecture in America, by Clarence Cook, is

marked by a freedom of utterance that is refreshing. Augustus G. Cobb writes of Earth-Burial and Cremation; and J. F. Manning, in an article entitled The Geneva Award and the Ship-Owners, sets forth the justice of the claims of consignors of cargoes and owners of vessels to indemnification out of the Geneva award fund, for losses from the acts of Confederate cruisers. *The Review* is sold by booksellers and newsdealers generally.

The Popular Science Monthly contains for September : Electric and Gas Illumination, by C. M. Lungren; Longevity, by Felix L. Oswald, M. D.; Animal Self-defense, by H. L. Fairchild, illustrated; Brazilian Diamonds and their Origin, by M. H. Gorceix; The Functions of an American Manual Training-school, by Prof. C. M. Woodward, Ph. D.; A Note on Thought Reading, by Horatio Donkin; The Physician of the Future, by Prof. George H. Perkins; Trials by Fire and Fire-jugglers, by M. A. De Rochas; Littré, Dumas, Pasteur, and Taine; The Chinese : Their Manners and Customs.

The next number of the *North American Review*, to be published September 15th, will contain a significant article by H. M. Hyndman, the English Radical leader, on The Coming Revolution in England; also, an interesting account by Dr. Henry Schliemann of his recent very important discoveries at ancient Troy.

The Youth's Companion, of Boston, is a sprightly, entertaining paper, deservedly popular, and is, without exception, the best of its kind published in America. It is filled to overflowing with the choicest original matter, of so diversified a character that it never fails to interest, instruct, and amuse, and is welcomed in the household by old and young alike. Serial stories will be contributed to the *Youth's Companion* during the coming year by W. D. Howells, William Black, Harriet Beecher Stowe, and J. T. Trowbridge. No other publication for the family furnishes so much entertainment and instruction of a superior order for so low a price.

THE PUPILS' CORNER.

THIS department, which will consist of new, and in many cases original, declamations, poems, dialogues, music, and games, suitable for Friday afternoon exercises, will be under the editorial charge of MRS. ALICE LYSER. Teachers who have matter for the department, or suggestions in regard to it, are solicited to send communications to her address at this office.

SELECT READING.

THE OUTCAST.

JOSTLE him out from the warmth and light—
Only a vagrant feeble and gray;
Let him reel on through the stormy night—
What though his home be miles away?
With a muttered curse on wind and rain
He crept along through the miry lane.

Lonely the pathway, and dark and cold,
Shelter he sought 'neath a ruined wall;
Over his senses a numbness stole,
Round him sleep threw her mystic pall.
Then an angel came with pitying tears,
And lifted the veil of by-gone years.

Gayly he sports by a rippling brook ;
Soft is the breath of the summer air ;
Flowers adorn each mossy nook,
Sunshine and happiness everywhere.
He is *Willie* now, just four years old,
With his rose-bud lips and curls of gold.

Hark to the roll of the war-like drum !
See the brave soldiers go marching by !
Home from the battle young *Will* has come,
Courage and joy in his sparkling eye.
And his pulses thrill with hope and pride,
For he soon will greet his promised bride.

In *St. Nicholas*.

Now in the fireside's flickering glow

Calmly he's taking his evening rest ;

Fondly he kisses his infant's brow,

Sleeping secure on its mother's breast.

(And the dreamer stirred and faintly smiled) :
He is *William*, now, with wife and child.

* * * * *

The curtain dropped—the morning broke ;

Faint was the flush in the eastern sky ;

Moaning and wretched the sleeper woke,

Brushing a tear from his bloodshot eye.

To his squalid home beyond the hill

With a saddened heart crept poor old *Bill*.

A. M.

DIALOGUE.

SCHOOL-MASTER WANTED.

[CHARACTERS : *Mr. Green*, Director of District No. 9. *Mr. Smith*, member of the School Board.

SCENE: School Board room. *Mr. Smith* seated at the table, writing. Enter *Mr. Green*. *Mr. Smith* rises to receive him.]

G. Be you one of the School Board of this township ?

S. Yes, sir ; my name is Smith, and I am a member of the board. What can I do for you to-day, Mr. —?

G. Green—my name's Green, and I'm the director in deestrick No. 9.

S. Ah ! happy to see you, Mr. Green. How can we serve you ?

G. Why, you see, there ain't any school in our deestrick, and I want you to find a teacher for us—one o' the right sort.

S. I think I can do so ; we are sending out some excellent young men this winter.

G. All right ; but I want you to understand we're pretty partie'lar up our way—leastways, I am.

S. That's right ! We cannot be too careful in selecting those who have charge of our schools ; the responsibility is very great.

G. I know that, Square, in a general way ; but I've got something oncommon on my mind about it this time.

S. Let us hear it, Mr. Green ; we are always glad of any new ideas or suggestions.

G. Well, I'll tell ye all about it. We hadn't any school, as I said before, and our Liza Jane she's all for larnin', and she wanted to go over to the school in the Creek Deestrick, and she's been a-tellin' of me what a wonderful good school it was.

S. She is right ; Mr. Taft is one of our very best teachers.

G. Humph ! you hear my story. Last Friday, bein' as 'twas good sleighin', I hitched up the old gray mare and went over to fetch Liza Jane. When I went in, there was a class out on the floor spellin', and I must own that it was about the neatest spellin' I ever did see, and no mistake.

S. Glad to hear that ; nothing more desirable than good spelling in our public schools.

G. But I'll tell you what ain't desirable in our public schools, and that's grammar ; leastways, not if it's like the grammar that was goin' up there.

S. You surprise me, Mr. Green ; I have heard that Mr. Taft is a noted grammarian.

G. Can't help what you've heard ; you hear my story. After they'd done spellin', Taft he called out a grammar class. Out they came, with my gal at the head. "*Conflagrate love,*" says he.

S. Conjugate, you mean, don't you, Mr. Green ?

G. Well, mebbe so, somethin' o' that kind ; no matter about that, that ain't what's the matter. Well, my gall got up—and she's a nice, modest gal, if I do say it—and says she, says my Liza Jane, "*I love, and he loves, and we all on us love.*" I shook my head at her, mortified enough; but she didn't seem to take notice, nor mind me one bit. Then up gets that sleepy-looking, slow-tongued John Peters, and he drawled out, "*If I'd a loved, and if she'd a loved, and if we'd all on us loved.*" I sot pretty near him, and says I to him kind o' low, "*What if ye had a loved?*" Well, he sot down, and up jumped that frisky little gal o' Smith's.

S. (laughing heartily). And what did pretty Jenny say ?

G. She was as bad as the rest. She looked up sort o' sarcy, and says she, "*I can love, and he can love,*" and she went on with a pack of nonsense about folks that *can* love.

S. I am interested to know if your daughter recited again.

G. That's what I'm going to tell ye. Up she got when her turn came, and says she, "*I shall or will love, and he shall or will love*" ; but then I broke right in, and says I right out loud, "*No you don't neither, unless I know who the feller is, and something about him !*"

S. Why, Mr. Green ! What was the effect of your "*speaking right out in meeting*?"

G. Why, Liza Jane she began to cry, and Taft looked at me awful *fierce*, and Jenny she went up and whispered something to him, and he laughed right out ; and all o' the rest on 'em laughed till I was glad to get out o' that school, and into my sleigh, with Liza Jane, with the old gray mare streakin' it for home ; and I declare for't, if the very sleigh-bells as they jingled didn't seem to keep sayin', "*I love, you love ! I love, you love !*"

S. But how about poor Liza Jane ? I have heard she is Mr. Taft's *favorite scholar*.

G. O, she cried all the way home, and she kep' a-saying, "*'Twas all in the book, father, 'twas all in the book ; 'tis all in the grammar !*"

S. She was right, Mr. G.; it is all in the grammar.

G. Then I don't want no grammar ! All I want of you, Mr. Smith, is to hunt up some middle-aged, old-fashioned kind o' man, who don't know nothin' about grammar, and he can have our school right off, next week.

S. (good-naturedly). I'll do the best I can for you, Mr. Green, but I fear that whoever teaches her in future, Liza Jane will never forget the lesson learned of Mr. Taft. "*I shall or will love, he shall or will love !*"

SCHOOL-ROOM GAMES.

FRUIT BASKET.

ALL sit in a circle except one, who stands in the middle. This one names each, in a whisper, some kind of fruit. One is a peach, another a pear, another an apple, plum, orange, lemon, fig, grapes, banana, pear, are given out, until every person is named. Thus, for instance, Mary Smith's "*fruit name*" is apple. Then the one in the center calls the names of two fruits, say apple and pear; these must change places, and while they do so, the one in the center will try to get into one of the seats. If he does not succeed, he calls again two fruits until some one else fails to get a seat. This one now must call two fruits. The one in the middle may call out "*Fruit Basket !*" and then all must change places.

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WHAT THE CHILDREN READ.

THE experience of men shows that failure always follows any effort to cure disease, either in the social, political, or physical body, which leaves out a consideration of its causes; that the application of remedies before such consideration is useless. The difficulties arising from complication in the structure of a diseased body baffle any attempt to follow to its source any one cause. The human intellect is helpless before problems whose conditions continually vary. Additions here of positive evil, and misapplications there of positive good, make it impossible to conclude upon what would be even an approximate outcome.

The relation of cause and effect is such an involved one, that men prefer rather to try experiments than to search out what that relation is. So it happens that many attempts at reform fail. It requires a heroic heart to undertake the reform of any evil which has great headway; unless the reformer dwell under the very "top of the sky," he may feel as if he were trying to mend the world with a tack-hammer.

The question, "What do the children read?" is one which attracts the attention of every reflecting reader of newspapers. In their discussions of this subject, the leading journals of the country agree as to the effects of bad reading, but they neither attempt to go back to the causes nor to suggest a remedy; or, at most, but rarely.

To us, some of the questions which naturally arise from serious considerations of this subject are these: What is the cause of the morbid taste in general for newspaper accounts of criminal trials, murders, suicides, scandal, gossip? In particular, what are the causes of the vast amount of reading done by children of papers of the *Chimney Corner*, *Our Boys and Girls*, and *New York Weekly* type? Who is to blame? How far are teachers responsible? What is our duty respecting it? What can we do?

Perhaps it would be impossible for the most profound thinker to satisfy himself entirely as to the first two of these questions; but I think we may safely ascribe a portion of the difficulty to the perversion of positively right tendencies in the mind by defective physical and moral education, and I need not leave out intellectual education, as will shortly appear. If we allow that this is true, or any part of it is true, then we have traced our secondary causes to one prime cause—ignorance of parents and teachers.

Consider what is life, even in intelligent families of many children, during the first six or seven years? We know that the very foundations of life—physical, intellectual, and moral—are laid, daily and hourly, on what is taken into the body and soul, and that these all begin with the very life of the child. The natural law of growth is the same in each; this is weakened by improper food as quickly and as fatally as that. If men and women know this, they deliberately forget it; present comfort, the weak desire to avoid responsibility, and the vain hope that “everything will come out right,” override conscience. So it comes to be true that children’s stomachs are crammed, all through their first years, at all hours, and with all sorts of unsuitable and stimulating foods, until the foundations are laid of innumerable physical, and by a natural sequence moral, ailments. The ignorant mother (and often the not ignorant, except in respect to children) gives her child food, perhaps for the tenth time in one day, to rid herself of its crying for the moment; which crying, perhaps, is an expression of its suffering from an already outraged digestion. It gets up late at night, and has nerves; its whims are gratified at the expense of household comfort; its manners are neglected, because it is a young child; its moral nature, its temper, are warped almost beyond repair before it is three years old. A little older, it is capricious, willful, selfish, rude, as if born in the hut of the most ignorant and uncultured backwoodsman. When this child goes to school, what are its chances, supposing its teacher to be a young, inexperienced girl, as ignorant of the laws of mind as its mother of the laws of the body? In its home life are still the same sorts of food, the same bad conditions of nutrition, the same unnatural, craving appetite which now demands and gets direct stimulants. Nobody denies that the effects on the growing body of bad nutrition are always disastrous, and yet few think that these effects touch the mind and morals. The instincts of the body being degraded, the same effect on the mind naturally follows. The growing body has had tea, coffee, cake, greasy pies, pepper, mustard, and whatever else the grown-up man takes with impunity; why should the growing mind be satisfied with anything natural and simple? Here begins one of the causes of the wrong-reading

difficulty. (No; this is not extremist doctrine; I have not the honor of being a reformer; I am merely an advocate for common sense in the physical and intellectual training of children.)

This overfed and underbred child, typical of a class, slowly climbs through the primary into the grammar grades. There he is uninterested, dreamy, difficult to manage; often caught reading a *Saturday Night*, with Monteith's back telling a lie for him. He is out of school half-days, and from home half-nights. In the Sunday-schools, however, he still finds attraction; for there in the library he is likely to obtain the sort of reading which fits on exactly, with no open joint, to the reading in his favorite papers. (You have only to examine Sunday-school libraries to be convinced of this likeness. In one library which I examined a few years ago, I found but three books which were really fit to be on the shelves.)

There are hundreds of children not in schools who are daily drinking in from these papers what will make of them burdens to society in one way or another. An eminent New York judge says: "I have given some attention to this subject, and have traced more than one criminal to what I believe to be the influence of this kind of reading"; and he adds, "If there is any justification of public censorship of the press, it would certainly find warrant in the existence of these publications. I have been told that there are upwards of twenty-five of these papers in the city, with a circulation of over 375,000." A writer in the March number of *Scribner* says: "The increase in the number of these papers and magazines, and the appearance from time to time of new ones, which, to judge from the pictures, are always worse than the old, seem to indicate that they find a wide market. Moreover, they appear not only among the idle and vicious boys in great cities, but also among the school-boys whose parents are careful about the influences brought to bear on their children. These periodicals contain stories, songs, mock speeches, and negro-minstrel dialogues, and nothing else. The literary material is either intensely stupid, or spiced to the highest degree with sensation. They are not remarkably profane, and they are not obscene. They are indescribably vulgar. They can be easily obtained and easily concealed, and it is a question for parents and teachers how far this is done. Persons under these responsibilities ought certainly to know what the character of this literature is."

IRENE HARDY.

Oakland High School.

SELF-TRUST.—Self-trust is the essence of heroism. It is the state of the soul at war, and its ultimate objects are the last defiance of falsehood and wrong, and the power to bear all that can be inflicted by evil agents. It speaks the truth, and it is just, generous, hospitable, temperate, scornful of petty calculations, and scornful of being scorned. It persists; it is of an undaunted boldness, and of a fortitude not to be wearied out.—*Emerson.*

THE POET AND THE CHILDREN.

WITH a glory of winter sunshine
Over his locks of gray,
In the old historic mansion
He sat on his last birthday.

With his books and his pleasant pictures,
And his household and his kin,
While a sound as of myriads singing
From far and near stole in.

It came from his own fair city,
From the prairie's boundless plain,
From the Golden Gate of sunset,
And the cedar woods of Maine.

And his heart grew warm within him,
And his moistening eyes grew dim,
For he knew that his country's children
Were singing the songs of him.

The lays of his life's glad morning,
The psalms of his evening time,
Whose echoes shall float forever
On the wings of every clime.
Wide Awake for May.

All their beautiful consolations,
Sent forth like birds of cheer,
Came flocking back to his windows,
And sang in the poet's ear.

Grateful, but solemn and tender,
With music rose and fell
With a joy akin to sadness,
And a greeting like farewell.

With a sense of awe he listened
To the voices sweet and young ;
The last of earth and the first of heaven
Seemed in the songs they sung.

And waiting a little longer
For the wonderful change to come,
He heard the summoning angel
Who calls God's children home.

And to him in a holier welcome,
Was the mystical meaning given
Of the words of the blessed Master :
“ Of such is the kingdom of heaven ! ”

JOHN G. WHITTIER.

A SONG FOR WOMEN.

WITHIN a dreary, narrow room
That looks upon a noisome street,
Half-fainting with the stifling heat,
A starving girl works out her doom.
Yet not the less in God's sweet air
The little birds sing free of care,
And hawthorns blossom everywhere.

Swift, ceaseless toil scarce winneth bread :
From early dawn till twilight falls,
Shut in by four dull, ugly walls,
The hours crawl round with murderous tread.
And all the while, in some still place,
Where intertwining boughs embrace,
The blackbirds build, time flies apace.

With envy of the folk who die,
Who may at last their leisure take,
Whose longed-for sleep none roughly wake,
Tired hands the restless needle ply.
But far and wide in meadows green
The golden buttercups are seen,
And reddening sorrel nods between.

Too pure and proud to soil her soul,
Or stoop to basely gotten gain,
By days of changeless want and pain
The seamstress earns a prisoner's dole.
While in the peaceful fields the sheep
Feed quiet; and through heaven's blue deep
The silent cloud-wings stainless sweep.

And if she be alive or dead,
That weary woman scarcely knows,
But back and forth her needle goes
In tune with throbbing heart and head.
Lo, where the leaning alders part,
White-bosomed swallows, blithe of heart,
Above still waters skim and dart.

O God in heaven ! shall I who share
That dying woman's womanhood
Taste all the summer's bounteous good,
Unburdened by her weight of care ?
The white moon-daisies star the grass ;
The lengthening shadows o'er them pass ;
The meadow pool is smooth as glass,

NATURAL HISTORY IN BRIEF.

ANIMALS are living creatures,
Recognized by these three features:

Sense of feeling, motive of power,
And inclination to devour.

Some have spinal cord and bone;
They as Vertebrates are known.

This great branch is subdivided—
Live-born Mammals foremost guided.

{ *Gorilla*, *Monkey*, both four-handed,
With Quadrumania are banded.

{ *Ocelot*, *Panther*, *Leopard*, *Lion*,

{ *Tiger*—each of Cats a scion—

{ *Jackal*, *Fox*, and common *Dog*,

{ *Hyena*, *Weasel*, *Ermine*, jog

{ On their toes; while *Wolverine*,
Badger, *Bear*, in step are seen

Moving on with all their sole,
Well agreeing, on the whole;

All fourteen, from *Lion* to *Bear*,
Live on flesh, and choose it rare.

{ *Antelope*, *Ox*, and *Buffalo*,

{ Goat-like *Ibex*, with Hollow-horns go;

{ *Reindeer*, *Moose*, close friends appear

With *Fawn* itself, the little Deer;

{ *Camel*, *Dromedary*, end, as they can,

Ruminantia, cud-chewing clan;

{ *Elephant*, *Zebra*, *Rhinoceros*, grace

{ With *Hippopotamus*, the thick-skinned race.

These thirteen, in Herbivora class,

Try to prove "All flesh is grass."

{ *Whales* or Cetaceans, Mammal-born,

Bring in *Dolphin* and *Sea-Unicorn*.

{ *Bats*, wing-armed, uncouth, and blind,

{ Are Cheiroptera, we find.

{ *Moles*, small-eyed, and short, and stout,
Are Insectivora without doubt.

Armadillo, clad in armor,

Sloth, Brazilian forest-harmer,

Ant-eater—Zoölogy states,

Are front-tooth-lacking Edentates.

Pouched *Opossum* and *Kangaroo*,

Name Marsupials to you;

And will also serve to lend

This Mammalian list an end.

VERTEBRATES.

MAMMALS.

	Herbivora or Plant-eaters.	Carnivora or Flesh-eaters.
	Pachydermata	Ruminantia
	or	or
	Thick-skinned.	Cud-chewers.
	Cetacea	
	or	
	Whales.	
	Edentata	Insectivora
	or	or
	Toothless.	Insect-eaters.
	Marsupials	
	or	
	Pouched.	

VERTEBRATES.	BIRDS,	
	Insessores or Perchers.	
REPTILES.	Oscines or Songsters.	Natatores or Swimmers, Waders.
BATRACHIANS.	Saurians or Lizards.	Raptores or Birds or Prey.
	Ophidians or Serpents.	Scansores or Climbers.

Next to Mammals Birds alight,
Feathered, billed, and fit for flight.
Owl, Hawk, Eagle, so they say,
 { Are Raptores, Birds of Prey.

{ Woodpecker and *Cockatoo*,
 Climbing, are Scansores true.

{ Quail, *Grouse*, *Peacock*, *Pheasant*, hatching,
 Join Rasores, given to scratching.

{ Short-winged *Ostriches* must run
 As Cusores, every one.

{ Flamingo, long in lim'ō, neck, bill,
 With Grallatores wades at will.

{ Swan and *Goose*, in allied legions,
 Penguin, *Auk*, from colder regions;
 All web-footed, swim with ease,
 And are Natatores, if you please.
Humming-bird and *Whippoorwill*,
King-fisher, with long, straight bill,
Merry Bobolink and *Lark*,
Nightingale, who cheers the dark,
Mocking-bird, of varied clamor,
 Bright *Goldfinch* and *Yellowhammer*,
 And *Canary*, sweet-voiced pet,
 Perch with Insessores yet.
 They are songsters, all but three,
 And close the bird-ranks well for me.

After Birds are Reptiles found,
 Scaly, cold, and hatched in ground.
Mud-turtle, of shelly fame,
 The Testudo tribe will claim.

Alligator, *Crocodile*,
Lizard, in a smaller style,
 With *Chameleon* and *Basilisk*,
 In the Saurian party frisk.
Anaconda, *Rattlesnake*,
 { *Viper*—these Ophidians take.
 Serpent, Lizard, Tortoise, tell
 All the Reptile orders well.
 Next, Batrachians come in.
 Water-reared and smooth of skin,
 Here belong the *Toad* and *Frog*,
 And the fish-like *Pollivog*.
 Also *Salamander*, slim,
 Long of tail, and small of limb.

VERTERATES.

FISHES.

Last of all the Vertebrates,
 Fish tribe, gilled and finny, rates.
 { The fierce *Shark* is cartilage-framed,
 { Hence Selachian is named.
 { Bright-hued *Dolphin* arms its fins
 { With stiff spines as sharp as pins;
 { *Pickerel*, *Sole*, and *Flying-fish*,
 { Have them smooth as one could wish.
 Mammal and Batrachian classes,
 Reptiles, Birds, and Fishy masses,
 Scaly, smooth, in fur or feather,
 All are Vertebrates together.
 Next in branch to Vertebrates
 Are the ringed Articulates.
 Notched-winged, furnished with antennæ,
 Insects class the first of any.
 { Scale-winged *Moth* and *Butterfly*
 { Lepidopters live and die.

ARTICULATES.

INSECTS.

Hymenoptera Lepidoptera or Scaly-winged. { *Honey-bee*, *Ichneumon*, bring
 { Hymenopter's membrane-wing.
 Coleoptera or Sheath-winged. { Sheath-winged *Beetle*, dark or bright,
 { Coleopter names it right.
 Neuroptera or Net-winged. { *Dragon-fly* in net-winged grace,
 { With Neuropters finds a place.
 Orthoptera or Straight-winged. { *Grasshopper* keeps straight wings hid,
 { Like Orthopter *Katydid*.
 Arachnida or Spiders. { *Scorpion*, *Spider*, close allied,
 { Stand Arachnids, side by side.
 Crustaceans. { After Insects come Crustaceans,
 { Ten-footed *Xantho* and relations.
 Myriapoda or Many-footed. { Myriapod, or *Centipede*,
 { Of the Angle-worm takes lead,
 { Hastening on with many feet,
 { To make Articulates complete.
 Next, soft Mollusks move about,
 Some with shell, and some without.

MOLLUSKS.

Gasteropods Cephalopods
or Head-footed. { *Nautilus* and *Cuttle-fish*, 'tis said,
As Cephalopods, walk on the head.

Gasteropods or Stomach-footed. { Gasteropod *Periwinkle* and *Snail*,
Are stomach-walkers, without fail.
Two more branches, in conclusion,
We will pass with mere allusion;
Radiates, from a center grown,
And Protozoans, simplest known.
Bony, nervous Vertebrate,
Jointed, ringed Articulate,
Curious Mollusk, smooth and soft,
Star-shaped Radiate, *radiant* oft,
Plant-like Protozoan, last—
All as Animals are classed.

KATIE L. DEERING.

The Christian Union.

COMBINATIONS.

IN the constitutional convention which formulated the present organic law of California, one of the members, discussing the article on education, made an argument in favor of contracting the number of text-books to three or four, which should contain in themselves the elements of all that need be taught in the common schools. The proposition, while a radical one, contained a germ of good, which, if not allowed to grow abnormally, may be and frequently is beneficially applied.

The idea is not a new one, and it may be that this article will not hint at a single method which has not been experimented upon by other teachers. Yet, as a matter of fact, there is very little that is really new and at the same time sensible in educational work. It is by continued repetition of old methods that we are frequently brought to see the merit that is in them. Most of the progress in common school methods consists not in new inventions, but in variations and modifications of those which age and experience have proven to have back-bones of strength. The old frame-work is much the same as it was fifty years ago; the difference is mainly in the different minutiae of additions and finish.

A fair illustration of unusual combinations in common school studies may be cited in the old series of Wilson's Readers, which were in use in this State a number of years ago. These, besides attempting the usual walks of literature, rhetoric, and elocution, branched off into history—both ancient and modern—architecture, geography, and almost the whole range of elementary science, including physiology, physics, chemistry, botany, zoölogy, geology, and astronomy. Such a combination may seem amusing at first glance, and

yet many able educators approved these books as preparatory to more advanced science, and arousing an appetite which would in itself lead the learner to further investigations, even if he had to do it by himself. The lessons were certainly prepared in quite attractive form.

To the one who has not given the subject especial thought, it is perhaps surprising to see in what a degree almost every study blends into and trenches upon some other study. The live teacher will find this out, and take advantage of the fact to combine the whole round of studies as near as may be into one harmonious whole, which will insure strength and symmetry in education, and avoid the weakness incident to several entirely detached and isolated portions of an education.

To illustrate practically: One of the simplest and yet most valuable combinations that the writer has yet made use of is a twenty-minute exercise daily in written spelling, in which no less than three studies and one exercise are involved. The words to be spelled are promiscuously selected from some lesson of the same day—generally the reading lesson, which occurs later in the day. There is no pupil, then, who has studied his spelling, but has to that extent also studied his reading lesson. As fast as the words are pronounced, the pupil carefully writes them, and also writes after each one an abbreviation, indicating what part of speech it is. The part of speech often depends upon the context; and when it does, the sentence in which it occurs is read by the teacher. It is a well-known fact that frequently pupils who are bright in grammar as long as the text-book on that subject is in their hands, drift out and flounder helplessly when trying to apply their knowledge elsewhere. This exercise has been found helpful in that respect. An error in naming the part of speech is counted as much an error as one in spelling. So if ten words are given in spelling, a perfect lesson counts twenty credits, which, of course, can be as easily averaged up on the decimal plan at the end of the month, as though the lesson brought in ten credits as perfect. Thus in this one case, one recitation involves spelling, reading, grammar, and penmanship, with little more work and much more profit than if confined to the single lesson given out from a spelling-book.

In passing, a few words of digression in regard to the spelling-book. As a rule, the steady use of the spelling-book coupled with the old-fashioned oral spelling-class is a nuisance. The end to be secured in teaching spelling is the correct spelling and understanding of the words the pupil meets in his studies, and those he will be most likely to use after leaving school. To secure this end, there should be practice by the pupil in writing the words, not simply from dictation, but in sentences and composition exercises. By following the method before indicated, the pupil will learn the orthography of many other words besides the ten which may form the class-work of the daily lesson.

The foregoing illustration is only a sample of others which the progressive teacher may originate with other studies. For instance, the daily reading lessons should be so managed as to lead the pupil out into the broader paths of literature, and to an acquaintance with the lives and principal works of leading authors. The arithmetic may and should be much used in various

problems of natural philosophy. It is absolutely essential that geography should be brought into the arithmetic, when the practical subject of longitude and time is on hand, in order to get a correct understanding of it. The elements of algebra and geometry may also be successfully introduced in the arithmetic class. The writer has had classes who unanimously bore testimony to the fact that they never before understood square and cubic root so clearly as after analyzing and applying the algebraic formulas for the square and cube of buildings. Book-keeping and arithmetic should be treated as members of the same family. Penmanship and book-keeping are even more closely related, being like twin sisters. Indeed, penmanship is most intimate with all the train of studies. Geography and history should constantly go hand in hand. Leading principles of animal and plant life, astronomy, and geology may profitably be introduced with geography. What is true of geography and history is doubly true of grammar and composition. Word-analysis, being but a branch of language study, may profitably alternate with grammar, claiming its time in two out of five days in the school week. The early history of the United States is so interwoven with that of the mother country and other European nations that a knowledge of their great epochs, their government, and literature is indispensable to the laying of a proper foundation for the study of our own history. To the end that pupils may not come to consider the history of a country a mere record of its battles, biography and general literature should furnish a large percentage of historical pabulum. Where can the lessons in physics concerning the three classes of levers be better explained than to a class in physiology, using the bones and muscles of the body as illustrations? And so on, almost without limit, the ingenious teacher may make one study help another, lessen labor to himself and pupil, and reap greater benefits.

While aware that this is an age of specialties, at the same time it is well to have a reasonable general foundation on which to support that specialty. Nowhere does the aphorism, "In union there is strength," apply more strongly than in education. If by combination, then, a broader and better-tilled intellectual field can be obtained, use combination. Combination does not necessarily imply smattering or superficiality. It would be well for many of the underlings in the "learned professions," who swarm in our cities, if they had even a smattering of some things of which they are now totally ignorant. If many of them had received a good, sound, common-school education (with all which that now implies) before vaulting into the arena, there would be fewer pettifoggers, charlatans, and sticks. If by combination the intellectual roots can be made to spread broader, as well as to strike deeper and to interweave, the whole tree will be more symmetrical, and offer a firmer resistance to the storm.

W. B. TURNER.

Pescadero Grammar School.

A HOODLUM.

CHAPTER X.—HIS DOUBTS AND HIS MORAL TRAINING.

THOUGH it is often true that “doubt is the father of unbelief,” yet it is even more often true that it is the parent of progress. It is the doubter who investigates, experiments, proves or rejects; who dares the untried, and leads the army of progress to new fields of glory. It is the doubter who laughs at the fables of the ancients, and mercilessly slays the superstitions of the ignorant.

Age can never make a lie venerable, nor can custom make a wrong just. This age is outgrowing infallible men and infallible books. No one man can tell what the world shall or shall not do; no one church can say what all men shall believe.

Yet, though it is the mission of the doubter to benefit the world, history is one long record of the punishment of unbelief. Even in the present the doubter must gather an army of supporters, or he is crushed to the earth for his unbelief. Public opinion believes only in the successful hero, and derides the weary and faint-hearted. And what has truth to fear? Blows only add to the strength of her armor, inquiry but reveals her beauty, curses cannot harm her, and persecution cannot destroy. Error alone fears the light, dreads the research, and hurls anathemas upon the seekers after knowledge. Yet he who doubts all things is even more to be pitied than the blindly credulous, for man could not live without faith, and he is often compelled to believe. Doubt is not denial, though it may end in denial; but faith without proof puts a bar upon all advancement.

Life is a series of experiments from the cradle to the grave, and lucky is he who can read the results aright.

Though the hoodlum, wise in wicked ways, is distrustful of all mankind, yet he is also blindly credulous. It would have been an easy matter for Carl, possessing as he did Donald’s entire confidence, to have dictated what Donald should believe, and where his creed should end; but it is extremely doubtful whether even a parent has any right to bias the minds of his children by teaching those children creeds they cannot comprehend.

Questions about religious matters, about creeds and beliefs, often arose (as they do in the school-room of every live teacher), and Carl would present the various sides of the questions as fairly as he could, and he never tried to force any religious belief upon the mind of the boy. In his history reading, Donald got hold of Draper’s “Conflict between Religion and Science,” and Carl had hard work to convince him that the church of to-day had changed for the better, at least in this country.

It was scarcely a century ago that the church claimed the control over property, liberty, and even life itself, in many of the States; and it even now has many a follower who would applaud the punishments of those times. Trustees in many a place in California have refused to employ a teacher who was too heterodox for their standard of belief, and many an election has been

decided by the creed of the candidates. Catholic creeds and the beliefs of other denominations are still taught in some district schools in defiance of the law; and in a recent fight between rival publishers, charges of bigotry and infidelity were freely bandied about.

The church people are never modest in their demands, and at the present time claim in California, where they have certainly as few privileges as in any State—

1. That men shall observe the Christian Sabbath.
2. That all the people shall support the church in certain ways by taxes.
3. That the laws shall favor them in various ways, because they are in the majority.
4. That the moral training of children shall be given into their hands.

These claims are modest when compared with what they claim in other places, and not a few in this State claim much more.

Though Carl told Donald that it was well to choose one day in the week for rest from work, he never forbade him doing on that day whatever it was right to do on any other day.

"It is well," said Carl, "not to offend and annoy others with noisy work which might disturb their devotions, though statistics plainly show that non-church-goers are far more numerous than those who attend. We may give way to the wishes of others without adopting their opinions." Carl also showed Donald that justice required that men should be taxed only to support the government, and that the laws and customs which exempted church property from taxation, made people pay for chaplains in legislatures, prisons, asylums, etc., were contrary to every notion of justice, and forbidden by the spirit of our Constitutions. But it is the fourth claim that the church most strongly insists upon, recognizing how easily it can impress its dogmas upon the tender, unreasoning minds of children, when doubts are easily silenced by assertions, and the most impossible things looked probable.

Carl showed Donald that religion and morality were entirely distinct; that the most religious nations were often the most immoral, and always the most intolerant of others' opinions; and that when a person made loud professions of religion, he needed watching. It is said that school-masters who are not Republicans are hard to find; but it is much harder to find a good school-master who is strictly orthodox. The cause of this is not hard to understand.

Orthodoxy implies a certain fixed belief running in well-worn channels. It shuts out unbelief, frowns upon doubt, shakes its head at investigation, and appeals to faith instead of reason.

A good teacher investigates, weighs, ponders over knotty points, and takes no man's say-so as a certainty. Just as certainly as minds are different will such men reach a belief outside of beaten channels, unless in cases where the teachings of early childhood have so fixed their belief that they are incapable of unbiased judgments.

As religion has to do with belief, so morality is related to conduct. Both, to a great extent, are creatures of natural dispositions, molded by habits. Carl regarded moral training as the most important part of education. Depend-

ing, as morality does, upon good habits, Carl tried to make certain habits a second nature to Donald. Habits of personal cleanliness, of disregard for ornaments of dress and person, while still observing a moderate respect for custom; habits of industry, of economy, and of a wise generosity; habits of good humor and kindness, not only towards humanity, but towards the lower animals as well; a respect for age, a tenderness towards the weak and the unfortunate, and a proper regard for the feelings of others.

Truth should be accompanied by frankness, and honesty should be free from covetousness. Carl taught Donald that it was just as dishonest to take advantage of ignorance when making a trade as it was to cheat in any other way. All fair trades are advantageous to both parties, and all betting and gambling are hardly a bit better than deliberate theft.

"Men who expect to get something for nothing are foolish," Carl would say; "and men who desire to get something for nothing are wicked. Trading horses never excuses a lie, and money won by gambling is the price of a conscience."

In his dealings with others, Carl advised Donald always to give down weight and heaping measure.

"If you are paid in no other way, you will grow in manhood by always doing a little better than you agree," he said to Donald.

Purity of speech is a great help to purity of morals; and while Carl considered no subject immoral to talk about in a proper way, he never encouraged vulgarity, obscene jokes, or slanderous gossip. "Speak well of people if you can," was the rule at Camp Comfort.

While Carl required prompt obedience of Donald, he encouraged that independence of mind which forms its own judgments, and leans for moral support upon no other person.

Carl was a firm believer in equal civil rights for both sexes, but he taught Donald that young ladies, as such, needed polite attention no more than the opposite sex.

"Gallantry is not politeness," he told Donald; "but if you wish to practice gallantry, better choose old ladies. They will appreciate it more, and will laugh less at your mistakes. A kind heart and a watchful eye are safe guides to a proper politeness."

Too many women are ready to claim not only their just rights which they should have, but the rights of others also.

Carl taught Donald, in many a rough mountain trip, the virtues of patient endurance of hardships—those hammers which strike off the shackles of a false civilization.

He taught Donald that wise patriotism which loves the whole world, yet does its duty to the nearest people first. He taught that proper regard for law which every true citizen should have, yet he held it right to refuse to obey those laws which are morally wrong. Moral law is above the law of a legislature, which licenses saloons to deal out liquid poisons, and pays the public money to clean the filthy, tobacco-filled spittoons in their legislative halls. It is well to show evils to the child. Innocence is not virtue, and the untempted

can have but little moral strength. He who knows evil can avoid it, but the ignorant run blindly into danger. The world is full of shams and frauds, and many a dollar do the foolish send in response to a glowing advertisement of some humbug. The papers of to-day are filled with the virtues of St. Jacobs Oil, electrical brushes, belts, and pads, wonderfully cheap chromos, ways of earning from five dollars to one hundred dollars a day, offers to give five dollars for one, or to give free some marvelous remedy. All over the country are inventors, eager to sell you their latest patent method of lifting one's self by his boot-straps; men who have remained poor all their lives, but know just the way to make you rich.

"How is it," inquired Donald, "that these humbug medicines get so many testimonials of cures if they are nothing but humbugs?"

"Some of them are paid for," replied Carl; "but many cures are really effected by faith. In all ages, the cunning have cured by faith; and it is only of late that science has recognized that a belief that you are going to be cured is the strongest kind of medicine to make a cure. In all countries, and in every age, doctors arise who cure by laying on hands, by rubbing, and making passes. These doctors undoubtedly perform many cures by working upon the credulity of their patients."

"When I want to get rich without honest work," said Donald, "I will become a traveling phrenologist, medium, and magnetic doctor, and cure people by faith, at prices proportioned to the size of their gullibility and their pocket-books."

CHARLES M. DRAKE.

Santa Paula, Ventura Co.

PRIMARY READING.

THERE are in most of our reading books excellent rules for reading. They may all be expressed in one, however, which may be taught to primary children; viz., "Read as you talk." A child, if left alone, will read a sentence right, that is, right according to his own thoughts. Oftentimes he thinks wrong, and consequently reads wrong. The teacher's work, therefore, in a reading lesson, as well as in all other lessons, is to see that the children not only *think*, but that they *think right*. A child may read the following sentence (from the Third Reader), "We cannot walk now," as follows: "*We* cannot walk now." This would be wrong if we wish to carry out the writer's thought; but not wrong for the child if his thoughts lead him into the error, and nothing has been done to cause him to think right. The child's thoughts are upon the story of the children and their papa; hence he thinks all that is said has reference to them, and to *him* it is *they* who cannot walk, therefore he gives *we* the emphasis.

Many teachers, I fear, would correct the error by first reading the sentence right, after which calling on the pupil to read. The pupil then reads it right, but he has done no thinking. He has simply imitated or aped his teacher;

and as he can only learn by thinking, he has learned nothing only in the sense that a parrot would. The pupil may always know how to read this sentence, but he has done nothing that will assist him to read any other; and if this same sentence is in a future reading lesson, he will, no doubt, read it as before, when perhaps to express the writer's thought requires a radical change, not only in the emphasis, but also in the inflection. Teachers, then, should not think they have taught children to read when the children are able to imitate the teacher, or to pronounce the words at sight. *Reading* has not been taught until the pupil reads as he would talk; or in other words, until he reads thoughtfully, and therefore reads with the right emphasis, articulation, inflection, and pitch. It is not necessary to teach the pupils the definitions of these terms, or to use the terms themselves in a primary reading class. There are many methods that may be used to cause the children to think, one of which is as follows: the teacher may write on the board, "I can see the man," and ask the class to read it.

Class.—I can see the man.

Teacher.—I will ask some questions, and those who think they can then read it may raise their hands. *Who* can see the man? [All hands raised.] Class may read.

C.—I can see the man.

T.—Oh, no; you *can't* see the man. C.—I *can* see the man.

T.—You can *hear* the man. C.—I can *see* the man.

T.—You can see the *boy*. C.—I can see the *man*.

T.—Very well done. I will now read, and you may tell me what it means each time. [Reading.] I can see the man. Who can tell what it means? [Most of the hands raised.] Jennie may tell.

Jennie.—It means that you can see the man.

T.—Right. We will try again. I can see the man. Willie, tell what it means.

Willie.—It means some one has asked, *Who* can see the man?

T.—Yes, that it is true. I am pleased to see you are learning to *think*. Try again. I *can* see the man. Mary may tell the meaning.

Mary.—It means some one said you could *not* see the man, and you want them to know you can.

T.—That is right, Mary. I know you could not have given so good an answer without thinking. Listen again. I can *see* the man. Who can tell? John may.

John.—You mean that you can *see* the man, and not that you can *hear* him.

T.—Right again. We are having both a reading and a language lesson to-day. Once more. I can see the *man*. Well, May, you may tell.

May.—You mean it is not a *boy*, or anything but a *man*, that you see.

T.—Correct. Who can take the same words and ask a question with them? [All are ready.] John may try.

John.—Can I see the man?

T.—Yes. I will now write John's lesson on the board (*writing*). Willie may read it so we will know what he wants to see.

Willie.—Can I see the man?

T.—Mary may read it so we can know *who* wants to see.

Mary.—Can I see the man?

T.—George may read it so we can tell what he wants to do.

George.—Can I see the man?

T.—You have all done nicely. You may now pass to your seats, and see how well you can write the lessons that we have been reading.

Wm. M. GIFFIN.

In Primary Teacher.

CANDIDATES FOR THE STATE SUPERINTENDENCY.

WILLIAM T. WELCKER.

PROF. WILLIAM T. WELCKER was born June 24th, 1830, at Athens, East Tennessee. In boyhood he received good academic instruction in English, Latin, and Greek, and in mathematics. At the age of seventeen he entered with a class of over one hundred in the U. S. Military Academy at West Point. His standing in his classes was so high that when he graduated, in 1851, he ranked number four in a class of forty-two.

After graduation, he was appointed Second-Lieutenant in the Ordnance Corps of the army. In 1851, 1852, and a part of 1853, he was stationed at the St. Louis Arsenal. In 1853 he came for the first time to California. Here he was assigned as second in command to assist in the construction of the arsenal at Benicia, having given evidence even at this youthful age of high administrative capacity.

In the spring of 1856 he was ordered to Oregon, and took part in the campaign against the Indians. In 1857 he married Miss Katy Adair, daughter of General John Adair of Oregon, and granddaughter of Governor and Senator John Adair of Kentucky. Lieutenant Welcker was ordered, in the winter of 1857-58, to duty at the Watervliet Arsenal, Troy, New York, and remained till the summer of 1859, when he was selected by the Government to establish and command the Vancouver Arsenal in Washington Territory.

During these years he was twice promoted in rank. In addition to the scientific labors and studies of his profession, he at leisure times read law, was examined, and admitted to the bar by the U. S. Courts of Washington Territory and Supreme Court of Oregon. In 1861 he tendered his resignation from the army. For several years prior to 1869 he engaged in mining and civil engineering, during which time he assisted in the construction of the suspension bridge over the Frazer River in British Columbia.

When the University of California was founded, being strongly and universally recommended to the regents for the chair of mathematics by some of the highest mathematical authorities of the country, he was elected and installed, and went to work in that chair in September of 1869. He

organized and conducted the department of mathematics for twelve years, during which time he assisted to educate many hundreds of young men and women from different parts of California and the Pacific Coast. In 1880 he published "Welcker's Advanced Algebra," a little work which has been highly commended by some of the most eminent mathematical authority of the country.

He also organized the Bureau of Military Instruction in the University, and instructed the students in military science for several years. During this time he published a work on that science called "Welcker's Military Lessons," which has also met with commendation from high military authority, and is used as a text-book in some Eastern institutions.

He was removed from the chair of mathematics by the regents in 1881, against the earnest protest of a large and much-respected minority of their own body, the indignant protest of the whole body of students and *Alumni*, that of a large portion of the press of the State; and his reinstatement was asked by a long list of leading citizens of the State. These matters are of too recent a date to require an extended account of them now and here.

In June of the current year he was selected by the Democratic party as their candidate for Superintendent of Public Instruction, in which attitude he now stands before the people. His support is not confined to his own party, for he has many warm friends among the Republicans, and will poll a large Republican vote.

A. L.

PROF. S. D. WATERMAN.

MR. S. D. WATERMAN, the Republican nominee for State Superintendent of Public Instruction, was born in the town of Litchfield, Kennebec County, Maine, September 14th, 1842. After fitting for college at the academy in his native town, he entered Bowdoin College at Brunswick during the summer of 1857, and graduated in 1861, with a good rank as a scholar, just before his nineteenth birthday. During the winter of 1860 Mr. Waterman taught his first school on the island of Arrowsic, near the mouth of the Kennebec River. The monthly salary was \$16 and board, but it was necessary for the school-master in this district to "board around." A singing-school organized and taught by him added considerable to the net results of the winter's work. During the fall of 1861 he was principal of St. Albans Academy in Hartland, Maine. In the spring of 1862, through the assistance of Hon. J. D. Philbrick, at that time superintendent of the Boston schools, Mr. Waterman took charge of an academy at Mattapoisett, Mass. After teaching here one term, with a good measure of success, he enlisted as a private soldier in Company I, Third Massachusetts Volunteer Infantry, and served his full time with his regiment in North Carolina, under Generals Burnside and Foster.

After leaving the army, Mr. Waterman removed to Louisville, Kentucky, where he resumed the occupation of teaching. For two years he was first

assistant in the Tenth Ward Grammar School, corner Thirteenth and Green streets, and for two years afterward principal of the Eleventh Ward School, corner Seventeenth and Duncan streets.

In 1868 Mr. Waterman removed from Louisville to Greencastle, Indiana, and was elected city superintendent of schools. He succeeded in placing the schools of that city on a popular and firm foundation, and they have ever since held the post of honor among the schools of Indiana. The Greencastle *Banner* of September 6th, 1882, contains the following very complimentary notice of Mr. Waterman in connection with the action of the Republican convention at Sacramento:

"Prof. S. D. Waterman, formerly superintendent of our city schools, but who left here in 1870, and has since been connected with the schools of Stockton, California, was nominated for Superintendent of Public Instruction by the Republicans of that State last week. Prof. Waterman made a splendid record as an educator while here. His twelve years' work in California has added largely to it. The suggestion of his name for the important office of Superintendent of Public Instruction was received with much favor throughout the State, and his election is a foregone conclusion. He will discharge the duties of the office in such a manner as to increase the efficiency of the schools, and at the same time awaken a new public interest in them. Indiana lost a valuable citizen when he went to California. Such men are the salt of the earth."

After years of successful service in Greencastle, he removed to California in 1870, and has ever since been connected with the schools of Stockton—for ten years with the high school of that city. Although he is a strict disciplinarian, there are few in any school-room in the land who win the esteem and confidence of the pupils in so marked a degree.

Prof. Waterman is a man of pleasing address and warm, genial manner. In the various county and State institutes he has always been an active participant. At the meeting of the State Association two years ago, his paper on The Wants of our Schools attracted wide attention, and elicited warm commendation.

Mr. Waterman has served for years on both city and county boards of examination. During his last term of service, he introduced and supported a resolution by which his county board of education recognized the diplomas of the State Normal School. Previous to this action of the board, Normal School graduates desirous of teaching in San Joaquin County were required to enter the examination for a certificate. For this stand in defense of Normal School graduates, Mr. Waterman deserves their unqualified support. If he is elected, his administration will be a vigorous one; and all who know the man can say that he will work diligently and zealously for the best interests of the educational department.

J. C.

THE C. L. S. C.

This department is under the editorial charge of Mrs. M. H. FIELD, San Jose, to whom all communications relating thereto must be addressed.

ANNUAL ADDRESS TO THE C. L. S. C. OF THE PACIFIC COAST.

DEAR FELLOW-STUDENTS—I greet you in the name of Science and Religion, in behalf of that knowledge which you seek, and that self-discipline and culture after which you aspire. Some of you are just beginning your course; others are nearing the end of the first stage. Your experience has not been so brief but that you have encountered discouragements, nor so long that you have entirely escaped them. They have arisen from the cares of business, the demands of the family, the attractions of society, or the fatigue of daily toil. These difficulties have not met you alone. All students meet them, or others similar, and too many yield to their influence. The lower classes of all schools are fuller than the higher; the Freshmen generally double the Seniors. Our classes should be an exception to the rule. If met by peculiar difficulties, our years and experience should give us corresponding resolution and strength. Permit me to encourage you if you are strong, and to confirm you if you falter.

You need the studies of our course. If children have been given you to train, these studies will enrich your mind and discipline you to self-control for the great duty. If business cares engross, habits of reading and study will guard against reducing life to questions of profit and loss. If professional life lays its demands upon you, this course will keep open the field of knowledge beyond the range of your daily thoughts. If the labors of the shop fatigue, our studies will preserve you against becoming the *drudger* of toil. If the labor of the farmer invites you abroad, our books will enlighten the eye to behold new beauties in the chemistry in the soil, the wondrous variety and beauty of organic life, and in the benignant heavens bending over all.

We need your co-operation. Every new member adds to our courage and strength; every member lost subtracts from our influence. Your annual fee will aid somewhat; your name and local influence will do still more: your presence at our Annual Assembly at Monterey will help most of all.

We all have every encouragement to go forward. The C. L. S. C. now numbers thirty-five thousand members. The number of graduates last year was two thousand, and of these, seven hundred were present at Chautauqua to receive their diplomas. What university numbers its *alumni* in that way? Within three years over twelve hundred have been enrolled in the Pacific Branch. A large number will graduate next year, and we expect a full class at our next Monterey Assembly.

But perhaps your case is not reached yet. You have not time. I see. And will you relinquish all because you cannot do everything? If you cannot pur-

sue all these studies, take a part—the part for which you have the greatest use or aptitude. Perhaps the course is too hard; you are not accustomed to reading and study; you meet strange and unknown words. Buy a good dictionary and look up every hard word.. Persist in reading and thinking until the subjects open to the mind. Presently, as you look back, you will be astonished at the progress made. We have a place in our plan and a warm welcome for "irregular members"—members who cannot take all the course, but resolve to do what they can. If you belong to this class, send your name to Miss Norton, and select what you can carry. Hoping to retain your name on our list if we have it, and to add it if we have not, and desiring especially to meet you at our Monterey Assembly next summer, and to hear in person of your progress in knowledge, I am very sincerely your friend and fellow-student,

C. C. STRATTON.

President Pacific Branch C. L. S. C.



EDITORIAL DEPARTMENT.

IGNORANCE OR DEMAGOGISM—WHICH?

A "PLANK" in the platform of the Republican party of California pledges its candidates to secure free text-books for all the children attending the public schools. The same kind of political clap-trap was used in one of the conventions of the same party in San Francisco.

Now, such a policy must be the product of either the grossest ignorance or the most arrant demagogism. Under the new Constitution, the State has nothing to do with the adoption of text-books. Such power is vested solely in the local authority—the boards of education or supervisors. If a Legislature should authorize the purchase of an author's copyright, or contract with some publishing house to furnish certain books at cost, there is no power to enforce the execution of their enactment. Without a constitutional amendment, which, it seems, is not proposed, the Constitution absolutely prohibits any legislative interference with text-books.

To secure free text-books, the different boards of education must select the books, and ask the supervisors to set aside a certain portion of the school tax to purchase them. This can be done only at the expiration of the time (four years) for which the books now in use were adopted.

There are many arguments in favor of a system of free text-books. Law and general custom now provide them for those too poor to buy. This causes invidious comparisons, heart-burnings, and sacrifices by the sensitive poor, which tend to rob school-life of much of its attractive interest. The furnishing of free books to all would obviate this hardship.

The JOURNAL favors free text-books. It fully appreciates the force of the arguments in favor of that system. We must protest, however, against what seems to promise a reaction against the most important educational improvements of our age. We insist that the line shall be clearly drawn between free text-books and cheap text-books. Text-books may be furnished free to all pupils of our schools; it does not follow that these books should be the cheapest.

We speak clearly on this subject on account of several editorials in the *Morning Call* of San Francisco, an influential paper, which would not, we are confident, do such an injury to the public schools as the carrying out of some recent editorial utterances must certainly inflict.

This editorial would not have provoked comment or reply had not its plausibility already imposed on a portion of the interior press. Some papers quote its figures approvingly, and urge the purchase by the State of a certain copyright and the publication of text-books free for all.

The objection to the State publishing any series of text-books are at present insuperable. But were it possible, by constitutional amendment or otherwise, to publish school-books, to follow the course suggested by the *Call* would be in the highest sense unwise, not to say irrational and absurd.

The *Call* shows that school-books are now expensive—a heavy burden on the middle and poorer classes. There is probably some foundation for this statement; but it is exactly what the people were warned of by this journal, when the educational article of the Constitution was under discussion in the convention; and later, when it was submitted to the people. We warned the people then that to adopt the new Constitution meant an increased tax for school-books, and, in the course of time, inferior schools.

Our prediction in regard to the books has already proved true; the cost now is from twenty to fifty per cent. more than five years ago, more especially throughout the rural districts.

But the special unwisdom of the *Call's* suggestion is in relation to the kind of books it advocates for adoption. It shows that the cost of the present series in the primary school—about ten dollars—may be reduced to about three dollars, by taking a series published by Mr. H. C. Kinne, a teacher in San Francisco, the copyright of which is offered by him as a gift to the State.

We do not aim at facetiousness, when we assert that Mr. Kinne, even at his own price, places too high a value on his books. But this is a mistake; they are worth something. Let us show the *Call* just how much.

The sickle and scythe were once used exclusively for cutting grain; the hand-press was deemed sufficient for printing newspapers; homespun was good enough for daily wear; horse-flesh furnished the most approved means of locomotion; the horn-book and testament sufficed for all intellectual cravings. So these books of Mr. Kinne are not more than a century behind the age. They would undoubtedly have been welcomed by our grandfathers. But if the *Call* editor will for once abandon the idea that because a man is educated, and writes good English, he is necessarily an expert in every occupation under the sun, he may be able to see why Mr. Kinne's three-dollar books are really dearer than those now in use.

We know that, according to some standards, cheap things only are those that should always be bought. On this principle, cheap whisky is best, because it kills off drunkards soonest.

In the same way, school-books that most actively and quickly promote the artificial production of stupidity in our children, are the best. They graduate our pupils most expeditiously, even if it is by the rear door; and they reduce those that remain to that admirable condition of stolidity not uncommonly seen in those children whose mental diet consists largely of words—words, and nothing but words.

Such books as the *Call* recommends would be rejected by educationa-experts at sight. They would convict them of violating almost every established

principle of the science of education. They would condemn them as unsuited to the mental health, as would be rough, ill made seats and desks for the physical well-being. In fact, bad light, insufficient ventilation, seats tending to distort the body, and malarial surroundings, are not more productive of permanent injury to the child than are those educational appliances which would cramp and distort the mind, and pervert the entire object of school-training.

CHANGES IN THE JOURNAL.

ARTICLES of incorporation of THE SCHOOL JOURNAL PUBLISHING COMPANY were filed in the office of the county clerk of San Francisco, in October. All interest held by Mr. Carlton and by Mr. Lyser in THE PACIFIC SCHOOL JOURNAL is transferred to this company. Many of the most prominent educational people of the State have taken stock in the new company; the main object of incorporation being to interest the leaders in educational matters on this coast in a journal which shall be devoted to the material advancement of education, to the conservation of the teaching profession, and to the total elimination of politics from our schools and school management.

The directors of the corporation for the first three months are as follows: John Swett, James Denman, Joseph Leggett, Joseph B. McChesney, Azro L. Mann, Montague R. Leverson, Frederick M. Campbell, Ira More, Albert Lyser.

The officers are, President, J. B. McChesney; Secretary, Montague R. Leverson; Treasurer, Albert Lyser.

The executive committee consists of A. L. Mann, J. B. McChesney, and Albert Lyser.

The place of business will be 838 Market street, until some further changes contemplated are effected. Letters and money orders or drafts will be addressed to the treasurer. Mr. Lyser will also continue for the present in the position of managing editor.

THE STATE SUPERINTENDENCY.

IN this number of the JOURNAL are presented sketches of the life and educational work of the candidates for the important position of State Superintendent of Public Instruction. We present, first, the name of Prof. W. T. Welcker. This gentleman is in every way worthy of the high honor of the superintendency. A man of thorough culture, ripe scholarship, and successful experience, he has also given evidence amid trying scenes and at critical moments of eminent administrative capacity.

Hundreds of pupils in this State, looking back to his instructions with gratitude, are repaying his efforts with warm adherence. As a man, there is no blemish on his name. Entirely temperate in his habits, the soul of integrity, the high station of superintendent will receive an added luster from his name.

The superintendency is not a political office, and it is as an educator, and not as a politician, that he approaches it. We believe that if Prof. Welcker is

elected, he will fulfill the duties of State Superintendent to the best advantage of the present and of future generations of the people of California.

Nor is our high praise of one candidate spoken in the way of disparagement of the other. Prof. S. D. Waterman, a sketch of whose life also is given, has distinguished himself by reason of his eminent success as a teacher as among the foremost educators of our State. A man of thorough culture and collegiate training, unexceptionable in his habits, of the highest personal character, his experience in our public schools makes him well qualified to the task of their supervision. Should he be elected, we believe he will carry on the splendid work of his predecessor, with no detriment to our schools.

DEATH OF A PIONEER EDUCATOR.

THOUSANDS of Californians in all ranks of life, mothers of families, teachers, and scholars, will learn with feelings of deep sorrow of the death of Mrs. Mary Atkins Lynch of Benicia. Her death, to those not among her immediate circle of friends, was quite unexpected; as until lately she appeared full of life and vigor, working in the cause of education with all the spirit of twenty years ago. That her work was of the best, those who read these lines, and to whom the fame of Miss Atkins' Seminary is a household word, need not be told. She left the impress of high aims, intellectual and moral, not only on her own work, but indirectly, by her example and influence, on the entire educational work of the State.

Among our teachers, some of the most thorough and best prepared were made so at "Miss Atkins' Seminary." Many a mother has known how best to educate her children from experience of the training given by Miss Atkins.

The sympathy of thousands of earnest, loving hearts, is with Prof. Lynch in his deep affliction.

NOT RESPONSIBLE.

OF course our readers understand that we are not responsible for any contributed articles that appear in the JOURNAL. Wherever the authors' names are appended, the responsibility is assumed outside of the editorial management.

OUR ADVERTISEMENTS.

SPECIAL attention is called to the advertisements in this issue of the JOURNAL. Our business in this department constantly increases, and is well worth noting. Our friends will oblige us greatly, if, when ordering goods advertised with us, they will name the JOURNAL.

THE TEACHERS' AGENCY.

MISS J. M. WHITE, the manager of the Teachers' Agency at this office, has had a large number of applications for first-class teachers during the past three months. She has still eight or ten desirable positions unfilled. So great has been her success in securing capable and conscientious teachers, that the number of counties from which orders are sent is constantly increasing. First-class teachers out of employment, or those desiring to change their positions, will do well to communicate with her immediately.

FRED. M. CAMPBELL.

THE sketch of the life of Supt. F. M. Campbell, with the accompanying illustration, the third of our series of Educators of the Pacific Slope, will appear in our November number. The article and portrait were both ready for this number; but Supt. Campbell, with his characteristic courtesy and disinterestedness, suggested that sketches of the candidates for the superintendency should have precedence in this issue, the last before the election. We are sure both gentlemen will appreciate his kindness.

NEW ADVERTISEMENTS.

OUR readers will note a number of new advertisements in this month's JOURNAL. Especially interesting is the advertisement of Caw's Ink, furnished by the A. S. Spence Company.

OFFICIAL DEPARTMENT.

SUPERINTENDENT FREDERICK M. CAMPBELL, EDITOR.

DISMISsION OF TEACHERS.—Yours of the 12th is at hand. In it you ask: (1) For what cause can a teacher having a written contract for a year be discharged, and his salary be withheld? (2) Has a teacher an appeal to the civil law on a contract?

I. It is difficult to answer specifically your first question. A violation on the part of the teacher of the terms of the written contract would be a cause, whatever those terms might be. Incompetency, immoral conduct, a failure to perform the duties imposed by section 1696—these would all furnish causes for such dismissal. Recognizing the possibility of a teacher's being dismissed, or his salary being withheld unjustly, the Legislature, in section 1698, Political

Code, provided for an appeal by the teacher from the trustees to the superintendent.

2. A teacher most certainly has an appeal to the courts, as other citizens; but the law having provided specially for such cases as the one you submit, it would be better for the teacher to avail himself of this special right of appeal before invoking the expensive machinery of the courts.

LIBRARY BOOKS.—I do not know the book. If, however, it is sectarian, partisan, or denominational, you did well to exclude it from the library, in accordance with section 1672, Political Code.

LAPSING DISTRICTS.—“Will you please oblige me by answering the following question in the Official Department of our JOURNAL: If the average attendance for three months in district A be only five pupils, but it could be proven that during this time four other census children belonging to district A had attended school regularly in district C merely for the purpose of breaking up school in district A, would said district lose its share of the school fund, and lapse?”

Answer. Yes. The law makes no exception for such a case as you cite. If from *any* cause the average attendance is only five or less, the district lapses.

REAPPORTIONING FUNDS.—“If my district maintains a *six* months’ school, but by reason of whooping cough fails to maintain an *eight* months’ school, should the balance on hand at the end of the year be reapportioned?”

The Attorney-General holds that it must be reapportioned; that those things named in section 1859 as relieving from the penalty for failing to maintain a six months’ school are not applicable to the case of a failure to maintain an eight months’ school, as set forth in section 1620.

GRAMMAR MASTERS’ CERTIFICATES.—While by subdivision second of section 1791, Political Code, your city board will no longer issue grammar masters’ certificates, it is my opinion that by the special provision in the last clause of section 1792 you have the power to renew such certificates previously issued. That special provision reads as follows: “And (the city board of education) may also, without examination, renew . . . any certificate previously granted in such city.”

SAN FRANCISCO NORMAL SCHOOL DIPLOMAS.—In reply to yours of the 28th ult., I have to say that it is entirely within the power of your board to grant temporary certificates upon diplomas of graduation from the Normal School of San Francisco.

Moreover, your board will be taking no chances, because the graduates of that department have all, previous to their special normal training, had a full high-school course; only the graduates of such school being admitted to the normal department.

While section 1775 is susceptible of the construction which I have given, it should in no case be strained so as to include graduates of *private* normal schools.

I make the last suggestion with the belief that you are probably laboring under a misapprehension concerning this school, inasmuch as you speak of it as "Swett's Normal School." Mr. Swett is simply the principal of the school. It is supported entirely by public funds.

Your question concerning the eligibility of — to serve as a trustee is fully answered by section 996, subdivision seventh, page 38, of the School Law, which provides as follows: "An office becomes vacant on the happening of either of the following events before the expiration of the term: Seventh—His ceasing to discharge the duties of his office for the period of three consecutive months, except when prevented by sickness, or when absent from the State by permission of the Legislature."

It was competent for the superintendent, under subdivision twelfth of section 1543, to fill the vacancy caused by his absence from the State for more than three months without permission of the Legislature. The failure of the superintendent to do so left the place still vacant, and his successor should have been elected on the first Saturday of June. If no one was elected, the vacancy still exists, and the superintendent should fill it by appointment.

DISTRICT TAX.—On the first *Monday of March* the boundaries of a certain school district embrace two townships, or seventy-two sections. On the first Monday in May the supervisors form a *new* school district, embracing one township, or one-half of the old. On the first day of June the old district votes a tax of five hundred dollars.

Question. Will the tax voted in June be a legal assessment upon all property within the former boundaries of the old, or upon the one township embraced in said district boundaries at the time of voting said tax only?

2. Would not the *new* district have a right to vote a tax in June or July, and would it not be the duty of the board of supervisors (sec. 1837) to levy the same the following fall, or at the time of levying the county tax?

In reply to your questions, I have to say:

First.—That the tax having been voted by the old district a month after division (that is, as I understand it, by that portion of the original district which was left after setting off the new district), the new district has nothing to do with it, and the tax can be a legal assessment upon the property of those voting the tax; viz., in the *old district*.

Second.—The new district, of course, has the right to vote a tax, and it would be the duty of the supervisors to levy the same next fall in accordance which section 1837.

VACANCIES IN BOARD OF EDUCATION.—You ask if you have the power to temporarily fill vacancies in the board of education. No such power is vested in the superintendent. The supervisors alone have power to appoint members of the board.

SUPPLIES, ETC.—"In case the school board neglect to supply the school with stationery and blackboards, and the teacher supplies these out of his own means, would it be legal for the school board to issue an order in the teacher's favor for the amount of money that the teacher paid out? or do you consider that

these trustees would be laying themselves liable should they issue the teacher an order for the stationery and other things that the teacher bought and paid for for the benefit of his pupils?

"2. Would you consider copy-books stationery, as mentioned in section 1620, or must they be supplied by parents?

"3. Are teachers entitled to the use of the school library while teaching, or must they pay library fees?"

Section 1651, School Law, provides, that "the clerk of each district must, under the direction of the board of trustees, provide all school supplies," etc. If the trustees failed to supply the necessary stationery for school purposes, I think they would be justified in allowing the bill of the teacher, provided that he purchased no more than was actually necessary, and at fair rates; but the order for the same must be "accompanied by an itemized bill, showing the separate items and the price of each," as provided by subdivision 3 of section 1543.

While I think it would be proper for the trustees to issue such order, it shows neglect of duty on the part of the trustees, and may perhaps establish a dangerous precedent. It is hoped that hereafter they will make all needful purchases.

Copy-books are text-books, and can only be supplied by the district to children whose parents are unable to furnish them. Section 1620 does not apply to copy-books.

The teacher should be allowed the use of the school library without charge. He is the proper person for librarian during the school term.

APPORTIONMENT—PUPILS UNDER SIX YEARS.—"Please inform me if the school law has been so amended that the apportionment is made according to the average daily attendance. Also, can a school of six scholars, one under six years of age, and five belonging to one family, be kept open for six months, or at all?"

Your first question concerning apportionment of school money is best answered by referring you to section 1858, page 31, School Law. This is the law as amended by the last Legislature, and is now in force.

The last part of subdivision second of section 1543 (page 7) answers your second question. Unless the *average attendance* is more than five, the district shall lapse. The pupil under six years of age should not be counted, for by section 1617 (page 15), subdivision ninth, it is the *duty* of the trustees to exclude such from school.

EIGHT MONTHS' SCHOOL.—"Can the trustees of a school district use an unexpended balance for other purposes (as painting school-house) until an eight months' school has been maintained? The case is this: Harvey district had a balance of some \$500 after maintaining an eight months' school last year. We are now closing the sixth month for this year. The trustees caused the school-house to be painted this winter, and drew a warrant on the county superintendent, which the county auditor refused to audit, on the ground that eight months' school had not been maintained this year. The trustees thought that under section 1621 of the School Law they could use the balance carried over from the last school year for repairs or any legitimate purpose. Now, does an unexpended balance become a part of the apportionment? and must an eight months' school be maintained before the trustees can use any part thereof?"

Section 1621 provides that, "if at the end of any year, during which an eight months' school has been maintained, there is an unexpended balance, it (balance

of county money) may be used for the payment of claims against the district outstanding, or it may be used for the year succeeding." As I understand the case, you had at the end of the school year ending June 30th, 1881, a balance of \$500 of county money standing to your credit, you having kept an eight months' school.

That sum was then available—

First.—"For the payment of outstanding claims."

Second.—As expressed in section 1622, "for any of the purposes named in this chapter," and this would include the painting of school-houses; or,

Third.—"For succeeding year."

It appears that your board decided to use it, or did use it, "for the succeeding year"; that is, the year which will end on June 30th next.

To obtain a balance which will be available for miscellaneous purposes this year, an eight months' school must be maintained. In my opinion, therefore, the auditor is right.

HOLIDAYS.—In reply to your postal of June 1st, I have to say that section 10, Political Code, specifies legal holidays. "May-day," by which I take it you mean the first day of May, is not named as such holiday. If the school was closed on that day by order of the trustees, the teacher is not compelled to make good the lost day, because, if the trustees could declare a vacation of one day, and require the teacher to make up the same, they could with equal propriety declare a vacation of ten, twenty, fifty, or any number of days, holding the teacher to the same conditions. If, however, the school was closed without authority from the trustees, it is the duty of the teacher to make good the lost time.

In conclusion, permit me to suggest that it is far better for the teacher to make up the day under any circumstances than to become involved in a controversy with the trustees, or to subject the district to a possible difficulty in obtaining apportionment.

A HARD CASE.—"It becomes my duty to write to you in regard to a school difficulty we have had here. My child, a boy nine years old, has received the most brutal beating ever heard of in the State by a teacher, and that it was done through malice is beyond all doubt. I had the teacher arrested, and he was cleared through the influence of the district attorney and the whisky ring, which rules all here to a great extent. I will not enter into details of the affair, but I request of you to come here and investigate both sides; it certainly is a matter that should receive your attention."

In reply to yours of the 28th ult., I have to say that the matter of the punishment of your boy does not come within the sphere of my action. The trustees of the school who employed the teacher, and who have the power to retain or dismiss him, is the proper tribunal before whom such cases should first be laid; then an appeal to the courts may be had. If they are against you, you have no redress.

Even if it were possible for me to go to — to hear and investigate this case, I would have no power to compel the attendance of witnesses, or pronounce judgment, or impose penalties.

EXPIRED CERTIFICATES.—"Before I became a member, the board of education adopted a rule authorizing the county superintendent to issue temporary certificates to those who hold *expired* certificates, claiming that for this purpose there is no difference between a certificate that has expired and a valid one. The dis-

trict attorney advised them to adopt the rule. I asked the county superintendent if he had obtained your opinion about it; he said he had not, for if your decision did not agree with that of the district attorney, he would not be governed by it. Under the rule, two who failed to pass examination, and two who had no excuse for not attending, have received temporary certificates. I think the rule unjust, and should like to have your opinion of it before the next meeting of the board."

An expired certificate is no certificate in law; it is simply an evidence that the person named therein was entitled to teach in the public schools during the time specified, *and no longer*.

The fact that a period of time was named, during which it should remain valid, shows conclusively that the Legislature considered time an important element in the contract. It would be quite as legal and proper for a notary to acknowledge instruments after the expiration of his commission as for a teacher to act upon an expired certificate, or for a board or superintendent to recognize it as in full force; and a district in which a teacher should be employed upon no other credentials than an expired certificate, or one issued upon it, would be liable to the penalty expressed in section 1860, Political Code; namely. "No school district is entitled to receive any apportionment of State or county moneys unless the *teachers* [all the teachers] in the schools of such district hold legal certificates of fitness for teaching in full force and effect."

It is entirely inexplicable to me how the last phrase can be tortured into including an expired certificate—one *not* "in full force and effect."

WHAT CONSTITUTES FIVE OR TEN YEARS' TEACHING?—You ask, "Upon what basis is the length of time engaged in teaching calculated?"

I take it for granted that your question has reference to the five or ten years of teaching necessary for the obtaining of educational or life diplomas. The "years" in this connection are calendar years. That is, a person must have been in the profession for a length of time, including five or ten years, as the case may be, without reference to the length of the terms taught. If a person has for five years been engaged in teaching an eight months' school, he has fulfilled the requirements by his forty months in the school-room. If he has been in the profession for five years, and so unfortunate as to have been teaching only a six months' school, his thirty months fills the bill. If another has been so fortunate (or unfortunate) as to have had his time fully occupied, so that he has taught twelve months each year, it gives him no advantage in this respect; his sixty months can only be counted as five years.

BALANCE OF STATE FUND—TAX LEVY BY SUPERVISORS.—A superintendent asks, first: "Can the balance of State funds remaining on hand, a nine months' school having been maintained, be used to pay outstanding claims other than for teachers' salaries?" Emphatically *no*. Section 1622, after stating how the county moneys may be used, provides as follows: "But *all* State school moneys must, except the ten per cent. reserved for district school library purposes, be applied *exclusively* for the payment of teachers of primary and grammar schools." The use of a balance of State funds for any other purpose would not be the *exclusive* use of *all* the funds for teachers' salaries. In the Official Department of the SCHOOL JOURNAL for July, 1881, page 295, you will find the subject more fully elaborated.

You ask, second: "Can the supervisors levy any more than the minimum tax reported by me? If I report a minimum of fourteen cents, can they levy sixteen cents or more?"

Section 1818, Political Code, answers this question: "The board of supervisors of each county . . . must levy a tax, . . . the *maximum* rate of which must not exceed fifty cents on each one hundred dollars of taxable property in the county, nor the *minimum* rate be less than sufficient to raise a minimum amount reported by the county superintendent."

That is to say, the supervisors may levy such a tax as they see fit; provided it is not in *excess* of fifty cents on the one hundred dollars (which is fixed by statute), nor less than a sum which the superintendent shall name. The supervisors may fix the amount anywhere between those two limits.

JANITORS.—You ask, "Suppose the pupils object to sweeping, has the teacher any other resort than to do the work himself?"

Yes. Rule 20 of State Board of Education, page 59, School Law, reads as follows: "Trustees are required to employ a suitable person to sweep and take care of the school-house, and they shall make suitable provision for supplying the school with water." Section 1521, subdivision one, makes it the duty of the State Board of Education to adopt rules for the government of schools, and they have the same force and effect as statute laws.

SEPARATING GRAMMAR AND PRIMARY DEPARTMENTS.—"Will you please to inform me whether the primary department of a public school can be separated from the grammar division, and taught as the primary of the aforesaid school, in the same district, and a mile from the grammar department?"

While I find nothing in the school law prohibiting such a separation of departments as you name, I do not think it in accordance with good policy; *first*, on account of the additional expense necessarily involved; *second*, on account of the opportunity afforded for the furtherance of private schemes; *third*, by the loss of that stimulus which a combination of various grades and departments under one management affords to the less advanced pupils.

There is another objection; viz., if the departments are separated, you have, practically, two schools in your district, with an independent principal for each, involving separate reports to be made by teachers; whereas the attendance, etc., should be embodied in one report, and that made, signed, and sworn to by the principal, which cannot well be done if the departments are maintained as separate schools.

The value of the supervision of a competent principal will more than compensate for any inconvenience to individual pupils occasioned by having but one school.

VOCAL MUSIC.—"Please decide the following question: I have a boy ten years of age attending public school. He is now studying arithmetic, grammar, geography, reading, writing, and spelling. The teacher wishes him to study music. He already has more studies than he can do justice to, but the teacher says the law compels me to purchase the book, and the boy to study it or be excluded from the school. If such is the law, please inform me."

The Legislature has (and I think wisely) included vocal music in the list of branches which must be taught in the public schools, and the teacher has therefore no option but to obey the law.

Experience all over the world has demonstrated that it is in the interest of good citizenship, good morals, of domestic happiness, and of the more lasting influence of home ties among the young, that the study of music should be given an important place in the education of youth; and it is this, no doubt, which influenced the Legislature in framing the law.

GRANTING CERTIFICATES ON OTHERS.—“Is it legal for our city board of examination to issue a first-grade certificate for the period of *four years* upon a San Francisco first-grade certificate which is to expire June 30th, 1882?”

It is perfectly legal for you to issue a first-grade certificate for the period of four years upon a first-grade San Francisco certificate, which latter is to expire June 30th, 1882.

Section 1791, subdivision second, of the Political Code, gives city boards of examination power to grant city certificates—(2) “First-grade, valid for four four years”—and section 1792 gives to the board power to issue certificates upon those of other cities, *and fix the grade thereof*; nothing being said about fixing the time thereof. It therefore follows that the *time* for which all certificates are to be issued, whether upon examination or upon the credentials named in section 1792, must be issued for the time as laid down in section 1791, subdivision second.

NEW DISTRICTS—WHAT IS “TWO MILES”?—A new district, formed by the division of an old one, is entitled to its apportionment when school has been maintained in the old district before division and in the new district after division at least eight months. (See section 1859, School Law.)

“Two miles from a school-house” means by the usually traveled road or trail, and not on an air line “over hedges, ditches, chasms,” etc. Distances from county seats to the State capital or State prison, are computed by the usually traveled route, and the same applies to the language, “two miles from any school-house,” as used in section 1577.

TRANSFERRING FUNDS.—A district clerk asks: “Can the superintendent transfer money from State to county fund?”

Superintendents have no power to transfer money from State fund to county fund. Such power would be equivalent to that of power to violate the plainest provision of law—an inconsistency which cannot for a moment be entertained. Section 1622 prescribes the purpose for which the *State fund* shall be used *exclusively*, as distinguished from the purposes for which the county fund may be used. To transfer State money to county fund would be to violate this plain provision. The authority to so transfer funds cannot be found.

ALIENS NOT ELIGIBLE.—In the opinion that it would not be legal for the supervisors to appoint an alien upon the board of education, I am borne out by the Attorney-General, whom I have consulted.

SCIENCE RECORD.

THIS RECORD is under the editorial charge of Prof. J. B. MCCHESNEY, to whom all communications in reference thereto must be addressed.

IN THE scientific gunnery experiments at Woolwich, the flight of a shot was measured to within the millionth part of a second.

BY SECURING variety in temperature, through planting oysters in different depths of water, as practiced in Connecticut, the *Scientific American* says oysters can be obtained in a fit condition for the table every week in the year. The greater the heat the earlier the oysters will spawn. Those in the deeper and colder water feel the heat later and they spawn later. Some portion of the oyster field, so to speak, will therefore be ready for harvesting at all times.

IT IS one of the most striking illustrations of the power of machinery that cotton can be brought from the far interior of India, on the backs of bullocks, to the sea, shipped around the Cape of Good Hope to England, manufactured, shipped by the same route paying repeated commissions and profits, and undersell the native manufacturer on the spot where the raw product is grown, and where labor is considered well paid at fifteen cents a day.—*Senator Bayard.*

A "CHEMICAL LUNG" is the latest thing proposed for the ventilation of tunnels. It was lately tested in London by fourteen scientists. A room 15x18 feet was kept for an hour at a temperature of 82°, and the air was loaded with impurities. The men of science were now called upon to enter, and the air was made still more impure by burning sulphur and carbonic acid gas. Then the "chemical lung," or punkah, so called, measuring 4x2½ feet, was set in motion. The temperature was soon reduced to 65°, and the air freed from all impurities. Then fat was burned to test the machine for organic substances, and the "lung" was started up just in time to prevent the examining gentlemen from running out for fresh air. It is proposed to use the invention during the construction of the Channel tunnel. It is just the thing needed in the deep Comstock mines.

A PAPER by Dr. D. W. Prentiss calls attention to two cases in which the introduction of pilocarpin—an active principle of the powerful Brazilian drug, jaborandi—into the system has caused a very marked change in the color of the hair. In the first case, the pilocarpin was administered at intervals during a period of ten weeks, with the object of "sweating" the patient. In a few days after the first application, the patient's hair, originally very light, was observed to be growing darker, and in six months it had become almost a pure black. In the second case, the hair had become perceptibly darker in a week after treatment with pilocarpin was commenced. The patient in the first case was a young lady of twenty-five, and the other was an infant. The introduction of jaborandi into medicine is of so recent a date that little opportunity has been afforded for studying its varied action on the system; but there appears reason to believe that the color of the hair is due to an oily pigment, which is increased under the influence of the drug.

THE following are said to be the sixteen American inventions of world-wide adoption: The cotton gin, the planting machine, the telegraph, the grass mower and reaper, the rotary printing press, steam navigation, the hot-air engine, the sewing machine, the India-rubber industry, the machine manufacture of horse-shoes, the sand blast for graving, the gauge lathe, the grain elevator, artificial ice-making on a large scale, the electric magnet in its practical application, the telephone.

MR. ALFRED TAYLOR has recently discovered near Warwick Square, in the heart of London, some nineteen feet below the present surface of the ground, about a dozen cinerary urns containing the results of cremation; one of glass, and some fifteen inches in height. Among them was a new coin of date A. D. 50, fixing the date of inurnment as not long afterward.

COUNTY INSTITUTES.

SONOMA COUNTY.

The teachers' institute of this county for 1882 assembled Monday, September 4th, in Santa Rosa, Superintendent Smyth presiding. After an able address by the superintendent, the teachers were divided into four classes for normal work. The first comprised mathematics and elocution, expounded by G. W. Jones and A. G. Burnett respectively; second class, grammar, H. E. Footman, and geography, D. C. Clark; third class, composition, Mrs. Hunton, and book-keeping, M. Dozier; fourth class, music and penmanship, F. A. Young. The attendance was larger than ever before on the first day, one hundred and thirty-nine teachers being present at second roll-call. In the evening State Superintendent Campbell delivered an able address; his theme was "Education—Its Debatable and Undebatable Grounds."

Tuesday morning Word Analysis was presented by A. G. Burnett. This called forth considerable discussion. In the afternoon session, Drawing was presented by J. C. Shipley. In the evening, Prof. Kellogg of the State University, spoke on the various methods and phases of training for the young. He dwelt particularly upon parents and teachers so regulating their own conduct that the inevitable imitation of their children and pupils will be for their benefit. He advocated moral and religious training in the schools.

The exercises of the third and fourth days were also exceedingly interesting. Lack of space precludes a full publication. This institute, like several others preceding during Superintendent Smyth's administration, was of great practical benefit to the teachers of this county. By work of this description, Superintendent Smyth has effected great improvement in the character of the work done by the teachers of his county.

Sonoma stands first in the number of its school districts, and third in the number of its teachers. In the efficiency of its superintendent, it stands among the leading sections of the coast. A thorough scholar, an affable gentleman, an honest man, Superintendent Smyth has richly earned the re-election we are certain he will secure. We hope to see him re-elected by a unanimous vote of the people of Sonoma, for the superintendency is not a political office, and as superintendent, C. S. Smyth has never been a partisan.

SAN MATEO COUNTY.

The San Mateo County Teachers' Institute began Wednesday, September 13th, Superintendent Hartley presiding. The exercises were opened by remarks by him upon the need of an interchange of views and methods in order to encourage inexperienced teachers. The attendance was very good, all the teachers in the county except three or four being present at first roll-call. Mr. E. H. Kraft gave an interesting dissertation on Book-keeping, and S. G. Cosgrove, by the aid of Appleton's Elementary Reading Charts, illustrated the advantage of the word method and phonetic combination. Fraction work was illustrated by the use of the fractional apples. In the evening, Prof. Norton lectured on "The Rise and Fall of Venice," illustrating his remarks by the use of the stereopticon.

On Thursday Prof. Norton gave an hour's instruction on the "Accessories of Geography," among which were mentioned map-drawing, the globe, juvenile books of travel, and geographical tales. This was followed by Prof. Lyser, who spoke upon the salient points of certain reference books for teachers, and aids in teaching geography. He also spoke of the necessity of having a definite aim in recitations. Mr. Cosgrove spoke on the "Government of Schools and the Use of Text-books." After remarks by Mr. Lyser on Language, an essay entitled "Does the Profession Advance?" was read by W. B. Turner. Prof. More, upon being introduced, proceeded to a ramble through Arithmetic, which created quite a discussion. He also spoke on Words.

On Thursday evening Superintendent Campbell addressed a large and attentive audience in Germania Hall. The institute adjourned after passing the usual appropriate resolutions.

LASSEN COUNTY.

The Lassen County Teachers' Institute met in the high-school building in Susanville, September 6th, 1882. Superintendent W. R. Schooler presided, and Miss Emma L. Hurlbut acted as secretary. The session opened with music by the choir. After a few introductory remarks by Superintendent Schooler, the subject of Practical Arithmetic was introduced by A. M. Fairfield. The subjects of Prizes and Credits and School Examinations were then taken up by R. L. Davis, and discussed at considerable length.

Thursday's proceedings were opened with music by the choir, after which Primary Reading was introduced by Miss Ida F. Spalding. Miss Myra Parks considered the subject of Advanced Reading, followed by F. M. Winchell. After recess Miss Emma L. Hurlbut explained her method of teaching Penmanship.

The afternoon session was opened with music. Miss Maggie B. Ford read a paper on Orthography, embodying her theory and experience in teaching the subject. Miss Basye gave a thorough blackboard illustration of her method of teaching Primary Geography, followed with Intermediate Geography by Mrs. Woodin. Mr. A. T. Stanley treated Oral Grammar. After a discussion on History, opened by W. H. Cantrill, the members of the institute resolved themselves into an "experience meeting," which caused much amusement.

Friday's proceedings were opened by Superintendent W. R. Schooler, who read some suggestions regarding the teaching of the Common School Branches. Mrs. M. E. Hurley clearly explained her method of teaching Primary Arithmetic, after which both that subject and Mental Arithmetic were discussed at length.

The afternoon session was opened with a consideration of the subject of Physical Geography by R. L. Davis, after which Miss Mamie McGlinchey introduced Grammar. By request, Prof. A. P. Merrill favored the institute with a solo, "The Owl," for which a vote of thanks was tendered. Mr. A. D. Bird then read a paper on "School Discipline." A public entertainment was given in the evening in the Congregational Church. Prof. Davis delivered an able address on "American Education and Educators," followed with literary exercises and music by the teachers present. After the adoption of the usual resolutions, the institute adjourned *sine die*.

SANTA BARBARA COUNTY.

The teachers of this county assembled at Santa Barbara, Tuesday, September 26th, for the annual institute. Superintendent G. E. Thurmond presided, Mr. McLean was elected vice-president, and Miss Ida Twitchell secretary. Principal McChesney of the Oakland High School, and Mr. Lyser of the JOURNAL, attended in the capacity of instructors.

On the first day, Mr. S. G. Cosgrove of San Francisco gave exercises in Common Fractions, illustrating with the fractional apples, and also some exercises on Appleton's Reading Charts. Mr. Montgomery of San Jose gave some exercises on Reading, Numbers, and Language, using Montgomery's Revolving Charts. Prof. McChesney gave a number of interesting and valuable exercises on Language Teaching. He also spoke on the teaching of Reading and Poetry. On Wednesday evening, he lectured on "The Spectroscope." Mr. Lyser spoke on History, Language, Spelling, Natural Philosophy, etc. An essay, "Physical and Moral Health of Teachers," was read by Miss Twitchell; one on "Shadows" by Miss Edmondston. At the suggestion of one of the conductors, twenty topics for lessons on the Science of Common Things were named to be used during the coming year. Illustrative lessons were given before the institute, with improvised apparatus, by Prof. Snow, Prof. Kellogg, Mr. Currier, and Miss Wheelock. Some pertinent remarks on elocution were made by Prof. John Murray of Santa Barbara, illustrated by

copious selections from Shakespeare's Julius Cæsar, which were rendered in exquisite and artistic style. Mr. Lyser on Thursday evening lectured on "The Uses and Abuses of Fiction."

In this county there have been comparatively few changes of teachers since last year, the same well-qualified and efficient corps appearing at the institute, presided over by the same faithful and popular superintendent. We are glad to see that Mr. Thurmond has been renominated. He has made an excellent superintendent; under his charge, good teachers have been drawn to the county and stayed, and there has been a general advance all along the educational line. We are confident his teachers and trustees will support him heartily, and that his re-election is certain.

SIERRA COUNTY.

The Sierra County Institute began Wednesday, September 26th, Superintendent Wixson presiding. After singing by the Glee Club, M. S. L. Brown opened a discussion on School Government, which occupied the remainder of the day. Many teachers took part.

Tuesday Prof. Nordin gave the institute his method of teaching History, and showed how the subject can be made interesting by drawing maps of the localities mentioned. The remainder of the forenoon was occupied by E. L. Case, who discussed Percentage, Interest, and Partial Payments. The relative importance of the various branches taught in the public schools was discussed; Superintendent Wixson, leading, claimed for reading, writing, and spelling the places of greatest relative importance. In the evening Prof. Nordin gave a lecture on Astronomy.

The following was the programme for the last day: Relation of Teacher and Patron, J. E. Berry; Methods in Music, G. H. Sheppard; Hygiene of the School-room, E. L. Case; and Book-keeping, by Prof. Nordin. At the close a social reception was given by the teachers.

LAKE COUNTY.

The institute convened in Lakeport, October 4th, and continued four days. The attendance was much larger than anticipated, and everything passed off in a pleasant manner. Wednesday evening Hon. Fred. M. Campbell delivered his lecture, Education—Its Debatable and Undebatable Ground. At the suggestion of Judge S. C. Hastings, it was decided to have the lecture published and circulated for general reading.

SAN JOAQUIN COUNTY.

The Teachers' Institute convened September 23rd, in Stockton, at the La Fayette School Building, and was opened with an address by Superintendent Kenniston. In this address, he said that of 5,626 school census children only 3,116 have attended daily on the average. This he attributes to "indifference and neglect of parents." There are 155 schools in the county, taught by 31 men and 84 women, at an average salary per month for the men of \$85, and for the women of \$65. This he thinks unjust discrimination.

During the afternoon session, Prof. Knowlton conducted an exercise, Last Year's Gains and Losses; This Year's Needs and Hopes. James Wells read an essay on Composition. In the evening, Prof. Knowlton lectured on Working and Shirking. On Wednesday the discussion of Mathematics produced quite a breeze. In the evening, Superintendent Campbell delivered his lecture, Education—the Debatable and Undebatable Ground. Prof. Knowlton conducted the proceedings of this institute in a highly acceptable manner.

CALAVERAS COUNTY.

The Calaveras County Institute was convened in San Andreas, September 28th, and Superintendent Peachey delivered an address of welcome. Prof. Knowlton acted as instructor. Better Attendance—Its Hinderances: How to Avoid and Secure Them, was

discussed. The Best Way to Prepare and Open a New School, was the subject of interesting remarks by Prof. Knowlton; also Classification. Of the latter, he said the three most important things are method, order, system. On motion, Superintendent Peachey tendered the thanks of the teachers to S. D. Waterman and C. M. Kenniston, and they departed for their home in Stockton. Superintendent Campbell being called on, spoke of the apportionment of school funds. Miss Laura Mercer read an essay entitled Make Your Mark. In the evening, Prof. Knowlton spoke on Uniting Homes and Schools. So interesting has this session proved that it was continued one day, Saturday.

Saturday the subject of Defining was taken up for discussion in the forenoon. In the afternoon Reading was considered, after which Politeness at Home and at School was the subject of remarks by Prof. Knowlton. The institute voted resolutions of thanks to Hon. Fred. M. Campbell, Prof. Knowlton, and Supt. Peachey; also, it was resolved that the text-books ought to be uniform throughout the State.

NEWS RECORD.

Educational.

The *Mobile Register* speaks in hopeful terms of the progress of education in Alabama. Last year the total amount expended for education was nearly \$500,000, and the total number of children enrolled in the schools was 176,289, of whom 107,838 were white, and 68,951 were colored.

Supt. H. E. Shepherd of Baltimore, Md., and author of Shepherd's Historical Reader, has been elected president of the College of Charleston. Mr. Shepherd is a Carolinian, was educated at the University of Virginia, and has been for fourteen years Superintendent of Public Instruction at Baltimore. He will fill not only the chair of president, but also that of English language and literature. The College of Charleston has a handsome endowment, which makes it comparatively independent.

The committee of the Liverpool Ragged School Union lately devised a novel means for ascertaining how many children of school age were to be found in the streets when they ought to have been at their lessons. A band was engaged to play for a couple of hours during school time on four days in different parts of the city, and it was accompanied by enumerators, who took down the number of such children as gathered around the performers. On the first occasion, the musicians discoursed sweet tunes in eleven streets, and the return was a total attendance of 670 children of school age. The next time there were fourteen separate performances, and the enumerators returned 950 juvenile attendants. On the third time of the experiment fifteen performances gave a total of 975 children, and on the fourth eleven drew together 425 lit-

tle ones. Every care was taken to guard against the recounting of any children who followed the band.

One of the most interesting of the colored schools visited in our late Southern tour was the public school in the town of Anderson, South Carolina, presided over by Captain Parker. The captain is well known in his State as the commander of one of the most aristocratic companies in the South Carolina division of the Confederate army in the late war. Left, like thousands of the young men of his generation, with only himself for a dependence, he went to the "up-country" and engaged in the work of teaching the negro children of the little city of Anderson in a public school. A ruinous old building, public funds that would only support the school five months in the year, and a swarm of ragged and restless children, made up the dreary outlook at the beginning. By the help of dime and nickle contributions from the parents, he put his house in excellent repair. By sacrifices which his own modesty has almost concealed from his friends, he has kept the school afloat through a nine months' session. The lack of teachers has been supplied by a class of his older pupils, utilized with good effect.—*N. E. Journal.*

The following will apply to California: It may be stated for the information of taxpayers who are called upon for \$200,000 this year to support the public schools of Rochester, that not one cent of this money is squandered upon the teaching of writing. The levy covers a handsome sum for the teaching of natural sciences, and drawing, and German, and so forth, but nothing is wasted on writing. This study or practice, which used to be considered an essential

with reading and arithmetic, has become obsolete in the public schools. Why its two ancient accompaniments have not gone with it, is one of those mysteries of progress not easy to fathom.—*Rochester Union*.

At a recent meeting of the Froebel Association at Boston, California was worthily represented by Miss Emma Marwedel and Mrs. Kate Smith Wiggin. Miss Marwedel read a paper on "Childhood's Poetry in the Alphabet of Form," in which she showed the need and value of the curved line in kindergarten drawing. She illustrated her interesting remarks with drawings of flowers, fruits, shells, butterflies, etc. The whole subject has been arranged systematically by her in a work for which she wants a publisher. The audience felt deeply interested in her subject, and unanimously adopted a resolution referring her paper to a committee of which Mr. Ogden was chairman.

The following resolution was passed concerning the book :

Resolved, That the committee, feeling that an extended knowledge of Miss Mar-

wedel's application of Froebel methods will be of great use to children in the school as well as in the kindergarten, urge the publication of her book, which will also contain songs and games illustrating these forms; and, if necessary, that the Froebel Union be requested to assist Miss Marwedel in any way in its power.

Bowdoin Memorial Hall, which for fourteen years stood a mere shell, has at last been completed by a donation of Mrs. Stone of Malden, Mass., who gave \$25,000 to complete the edifice which has been erected in memory of the sons of Bowdoin who fell in the War of the Rebellion. Mrs. Stone had previously given \$50,000 to endow the Stone professorship.

Roberts College, Constantinople, has two hundred and forty students and seventeen professors and tutors. This college is a powerful engine of civilization and Christianity in Turkey, and we hope that the movement now on foot to raise \$200,000 additional endowment will meet with speedy success.

EXAMINATION QUESTIONS.

FOR ADMISSION TO STATE NORMAL SCHOOL.*

FOR ADMISSION TO JUNIOR CLASS.

Arithmetic.

1. Add $\frac{1}{2}$, $5\frac{1}{2}$, and $\frac{3}{5}$; from the sum subtract $\frac{3}{4}$, and divide the remainder by $\frac{3}{8}$.

2. How many times 4 is $\frac{2}{3}$ of 6?

3. 8 is $\frac{1}{2}$ of how many thirds of 24?

4. A can do a piece of work in 6 days, B can do the same in 8 days, and C in 4 days. In how many days can all three, working together, do $\frac{3}{4}$ of the work.

5. If a person agree to do a piece of work in 30 days, what part of the work must he do in $16\frac{2}{3}$ days?

6. Find the prime factors, G. C. D. and L. C. M. of 210, 455, and 595.

7. Multiply .125 by .2, and divide by .000005.

8. What is the difference between $\frac{6}{7}$ of a hundredth and $\frac{1}{3}$ of a tenth?

9. What part of a cord of wood is a pile $7\frac{1}{2}$ feet long, 2 feet high, and $3\frac{1}{4}$ feet wide?

10. How many square yards in the floor, ceiling, and walls of a room 24 feet long, 15 feet wide, and $12\frac{1}{2}$ feet high?

Grammar.

(For Lowest Junior, the first five only; for Advanced Junior, the whole paper.)

1. Fill the following blanks with suitable words; punctuate properly: With what — do infants — at —.

2. Tell what part of speech each of the inserted words is, and its chief relation to the sentence.

3. Analyze the following: "Once in the flight of ages past there lived a man."

4. Parse all the nouns in the above sentence.

5. Give four rules for the use of capitals, and an example of each.

6. What parts of speech are declined? Give an example of each.

* The following set, used during the past year, is printed as a guide to those who are preparing to enter the school. It will prove valuable to teachers of district schools, also.

7. State the formation and use of compound personal pronouns. Give an example.

8. Write the possessive plural of dog, child, German, whom, countryman, his, himself, pretty, sister-in-law, pony.

9. Name and give examples of three uses of the word *that*.

10. Correct where necessary, and give a concise reason for each change :

They returned of theirselves.

Whose there? Its me.

William's and Mary's reign was one of peace.

Geography.

1. What is the polar diameter of the earth? What is its equatorial diameter?

2. How are latitude and longitude reckoned? Name the continents crossed by the Tropic of Capricorn.

3. What is the principal mountain peak of each of the following continents: Asia, Africa, North America, South America, Europe.

4. Name* five rivers of Africa in their order, commencing with the longest.

5. Name the form of government in the following countries: Italy, China, Egypt, Chili, British Columbia.

6. What are the five largest cities of Europe, omitting those of Great Britain?

7. What is the State religion of Spain? of England? and of Turkey?

8. Name in order, beginning at the west, five States and Territories of the United States crossed by the parallel of 40° north latitude.

9. Locate lakes Pyramid, Mono, and Tulare.

10. What and where are the following: Fresno, Chico, Whitney, and Shasta.

Spelling.

group	cereal	intense
radical	infamous	relative
separation	reverence	positive
righteous	religious	conceive
holiness	relation	problem
necessary	recipe	subsisting
involving	receipt	obvious
quotient	quarrelsome	negative
product	repetition	solution
inquiring	infinite	successive

prodigious	coercion	factoring
possible	receiving	raisins
probable	believing	oranges
policy	certainly	melon
patient	synthetic	mentally
police	operative	correction
serial	inferring	

FOR ADMISSION TO MIDDLE CLASS.

Arithmetic. (In addition to the foregoing.)

1. Reduce 15 pounds 10 ounces Avoirdupois weight to its equivalent Troy weight.

2. A cistern $6\frac{1}{2}$ feet long, $4\frac{1}{2}$ feet wide, and 4 feet high, *inside measure*, will hold how many barrels of water?

3. Reduce $3\frac{1}{8}$ to a decimal, carrying the result to three places.

4. Reduce .8469 of a degree to lower denominations.

5. At $8\frac{3}{4}$ o'clock A. M., longitude 120° west, what is the longitude of the place at which it is $11\frac{1}{2}$ o'clock A. M.?

6. If I place \$1,500 at interest for 18 months, and receive \$135, what sum must I place at interest at the same rate that I may receive \$275 in 8 months?

7. Bought an article for \$18.50. How much must it be marked that I may take 10 per cent. less than the marked price and clear 25 per cent. on my purchase?

8. My crop of wheat is 10 per cent. greater each year than the year previous, and in three years it amounts to 1,862 cents. What was each year's crop?

9. Sent my agent \$1,050 to purchase goods for me, at a commission of 5 per cent. How much was his commission?

10. At what rate must I buy Government 4 per cent. bonds that my income may be $5\frac{1}{2}$ per cent. of my investment?

Grammar.

(For Lower Middle, the first four only; for Advanced Middle, the whole paper.)

1. Parse in full the italicized words in the following:

(a) *What* shall the harvest be?

(b) The *why* seems more important than the *when*.

(c) His brother Henry's house was burned.

(d) *Whatever* he does, he does well.

(e) He walked three miles.

- (f) He entered the school as *assistant*.
 2. How many and what offices in a sentence has a relative pronoun? Give example.
 3. What is the positive of the adjectives *last* and *worst*?
 4. Are these sentences right or wrong, and why? (a) This is an awfully long day; (b) He only eats once a day.
 5. Parse the verbs in (a), (b), and (c) of number 1.
 6. Parse the italicized words in the following: "*Following* steadily the course *marked* out, he rose to *be* the first scholar of his time."
 7. Conjugate the verb *see* in the indicative future passive.
 8. Give the synopsis of *lie* (to recline) through the subjunctive mood.
 9. Define Potential Mood; Neuter Verb; Participle.
 10. Give the method of changing an active sentence to a passive, with example.

Physical Geography.

1. Define Political, Physical, and Mathematical Geography.
 2. What are the elements of the atmosphere? Define Monsoon, Cyclone, Trade-wind, Waterspout.
 3. What is the cause of air currents? Of land and sea breezes?
 4. Give the origin of caverns, geysers, limestone, coal, petroleum.
 5. Define Glacier, Moraine, Bowlder, Iceberg, Avalanche.
 6. Name one important ocean current, and describe its influence upon adjacent lands.
 7. What is Coral? How is it formed? Name localities where it most abounds.
 8. Define Delta, Alluvium, Bayou, Levee, Watershed.
 9. What is the climate of Tartary as to temperature and moisture? Why?
 10. Name the principal plateau in North America? in Asia? in Africa? Give approximately the height of each.

Physiology.

1. Give the number of bones in the human body. Locate the sternum, patella, and humerus.

2. Describe and locate in general, tendons, ligaments, and cartilage. Name one cause of injury to bones common in schools.
 3. What is the color, general location, and function of muscles?
 4. Give the parts of a tooth, and the number of teeth in an adult. Name two causes of decay in teeth.
 5. Name four digestive fluids and the organs which secrete them.
 6. Locate the salivary glands and the stomach. Name two common causes of indigestion.
 7. Name the expelling and receiving cavities of the heart, and the vessels which convey blood *from* the heart. Which of these convey impure blood?
 8. From what is blood derived, and what are its uses?
 9. Name and locate the organs of respiration. Mention one cause of lung disease.
 10. What constitutes the cerebro-spinal system? Give five causes of nervous disease.

ANSWERS TO SOME QUESTIONS.

WINTERS, Cal., Sept. 23, 1882.

EDITOR JOURNAL.—The September number of THE PACIFIC SCHOOL JOURNAL reached me yesterday evening, and I hasten to reply by the first mail.

I submit the following as correct answers to the questions given on page 366.

Question. "Locate the following inhabitants: Amphiscians, Antiscians, Ascians, Periecians, Pericians, and Antipodes."

Amphiscians are the inhabitants of the Torrid Zone. The term is of Greek origin, and signifies having their shadows falling both ways—north and south. At one time of the year their shadows fall south at noon, and at another time north.

Antiscians are inhabitants of the Torrid Zone on opposite sides of the equator, as compared with each other. The term is of Greek origin, and signifies having their shadows fall in opposite directions at noon.

Ascians are inhabitants of the Torrid Zone. The term is of Greek origin, and means without shadow, which occurs twice a year at noon.

Perieciens are inhabitants of opposite sides of the globe in the same parallel of latitude.

Pericians are inhabitants of the Arctic Circle. It is a term of Greek origin, and is applied to them owing to the peculiarity of their shadows going around them daily, as the earth revolves.

Antipodes, the inhabitants of the island

Antipodes, in the South Pacific Ocean, south-east of New Zealand. It is in latitude $49^{\circ} 32'$ south, and longitude $178^{\circ} 42'$ east, and is so called because it is the nearest land to the antipodes of London.

Hoping these answers may be thought worthy of notice, I am,

Very respectfully,

W.M. H. COOK.

EDUCATIONAL INTELLIGENCE.

OREGON.—The ninth annual report of the schools of Portland, Oregon, T. H. Crawford, superintendent, is before us. It is an ably prepared and comprehensive school report, showing a well-organized system of schools, thoroughly and efficiently supervised by Prof. Crawford. In the way of statistics, we find that 3,130 pupils were registered, and 2,166 were in daily attendance; the department numbered 56 teachers, including the superintendent. The total expenditures for the year were \$118,105.56. The cost per pupil in average daily attendance was \$25.72; cost per pupil on number belonging, \$24.57. The cost per pupil for tuition was \$20.25.

This department, under Supt. Crawford, has obtained a high degree of efficiency in some respects equaling, if not surpassing, any city on the coast. For instance, salaries are graduated according to experience; beginners in teaching are never placed in charge of the lowest grade, at least three years' experience being required therefor.

We find the percentage of absence and tardiness in the Portland department very small, the latter being but seven-tenths per cent. The percentage of pupils in the high school is found exceptionally large—seven and six-tenths per cent.; in San Francisco it is less than five per cent.

Supt. Crawford's report closes with an able address delivered by U. S. District Judge Matthew P. Deady, to the graduating class of 1882 of the Portland High School.

ALAMEDA COUNTY.—Prof. J. C. Bradley, vice-principal of the Oakland High School, has been elected professor of English Literature and English Language in the University; a most excellent choice.

Prof. Bradley's place in Oakland has been filled by the election of Prof. W. H. Galbraith, principal of the Santa Cruz High School.

Ex-Governor Leland Stanford, recently appointed Regent of the University, was present and took his seat in the board at its last meeting, October 7th.

P. M. Fisher, principal of the Washington School, is the Republican nominee for the superintendency of this county. Mr. Fisher is a graduate of Mt. Union College, Pennsylvania. He is a young man, scholarly in his habits, genial in manner, an enthusiastic teacher, and of superior administrative ability.

We are sure he will prove a worthy successor to Supt. J. C. Gilson, and that under his supervision the schools of the county will retain their present efficiency and high rank.

TRINITY COUNTY.—George E. Noonan is renominated for School Superintendent of Trinity County. Mr. Noonan has made an efficient superintendent, and deserves re-election.

SOMONA COUNTY.—Prof. James Faulkner, late principal of the Auburn Public School, died recently at Bloomfield, Sonoma County. At the time his fatal illness overtook him, he was teaching in Lake County.

We have already spoken in commendation of Supt. C. S. Smyth's character and work, and urged his re-election as superintendent of this county. It is to be hoped that every friend of education in Sonoma will see to it that he is chosen, if possible, by a unanimous vote.

CONTRA COSTA COUNTY.—Supt. A. A. Bailey is a nominee for re-election in this county. This is merited in an eminent degree, for under Supt. Bailey's supervision the schools of Contra Costa County have made decided progress. Before Mr. Bailey's term of office, school matters in Contra Costa were in a decidedly dead-alive state. With him commenced an administration characterized by vigor and advance, until the schools of the county now stand second to none in the State.

Teachers and friends of the public schools should see that Supt. Bailey is continued in his good work by an overwhelming majority.

EL DORADO COUNTY.—We have already spoken of Supt. C. E. Markham, who is a candidate for re-election in this county. We do not know who his competitor is; but we hold that when a man has so completely done his whole duty as Supt. Markham, when a man is found of such high scholarship and superior executive ability, the people will do wisely in re-electing him. Mr. Markham has the earnest support of the most intelligent portion of his constituency, and for the sake of her schools will, we trust, be re-elected.

FRESNO COUNTY.—The leading candidate for school superintendent in this county is Prof. B. A. Hawkins, an excellent scholar, and a fine teacher. He will undoubtedly prove an efficient superintendent. The present incumbent, Supt. Bramlet, is a candidate for auditor. This is, financially, a promotion, which Mr. Bramlet has richly earned.

HUMBOLDT COUNTY.—Mr. N. S. Phelps of Ferndale is the most prominent nominee for superintendent in this county. Mr. Phelps's record as teacher and man is unexceptionable. If elected, we believe he will greatly improve the condition of the Humboldt schools.

LOS ANGELES COUNTY.—The candidates for superintendent of this county are the present incumbent, Supt. J. W. Hinton, and C. W. Moores of Anaheim.

Supt. Hinton is a public officer who eminently deserves re-election. He has been a leader in educational progress in this State, and an honor to the county whose educational progress he has greatly advanced. Under his administration, Los Angeles emerged from a low educational rank among the counties of the State, and took a leading rank. The teachers of that county and all her progressive citizens should see that no accident prevents Supt. Hinton's re-election.

MENDOCINO COUNTY.—John C. Riddock, who was superintendent of this county some years ago, is, without question, the man who should again be elected to that position. His former incumbency was marked by vigor, intelligence, and progress. It is to be hoped that all the Mendocino teachers will interest themselves in again placing him at the head of school affairs in that county. He will make, as in the past, one of the best school officers in the State.

MARIN COUNTY.—Mr. Kellogg, the efficient and popular principal of the San Rafael schools, is a candidate for the county superintendency. Judging from his past record, he is the man for the place, and will carry on the good work so well started by the present superintendent, S. M. Augustine.

NAPA COUNTY.—The two candidates for superintendent here, Mr. F. G. Huskey and J. L. Shearer, are both excellent men. Mr. Shearer, from his wider experience as principal of the Napa schools, has shown qualities that will make him a good superintendent. He is scholarly, bright, and energetic. If elected, the schools will undoubtedly advance from what is already an excellent standard.

PLACER COUNTY.—The leading candidate in this county, as far as we can learn, is the present incumbent, O. F. Seavy. Supt. Seavy has done good work, and should be re-elected.

The Pacific School Journal.

MATEO COUNTY.—The present able and efficient superintendent, G. P. Hartly, is here renominated for re-election. Mr. Hartly has done so much to improve the condition of the San Mateo schools and further the best interests of the teachers, that he will undoubtedly command the united support of all the best people in his county.

SANTA CLARA COUNTY.—Supt. Chipman is one of the men who, in this State, have done most to advance progress in our school management. Devoting himself exclusively to the school interests of his section, he has brought his schools up to a high standard of efficiency. We trust the people of his county will show their appreciation of his ability and his efforts by re-electing him by a telling majority.

SAN DIEGO COUNTY.—Supt. G. N. Hitchcock, the present incumbent, is a gentleman of ability and culture—a Yale graduate—who has made one of the best superintendents of California. He is a man whom our schools can ill afford to lose. We hope to see him re-elected in this county.

SAN JOAQUIN COUNTY.—S. G. S. Dunbar, who preceded the present incumbent as county superintendent, is this time a candidate for re-election. During Supt. Dunbar's term, the schools of this county made undoubted progress. Active, intelligent, and progressive, he is just the man for the place. The teachers and people of this county will do well to place him again at the head of their school system.

TEHAMA COUNTY.—In this county our old friend, Myron Yager, will, we trust, sweep the field for the superintendency. He has done splendid work here, and is in every way, by education, progressiveness, administrative ability, best fitted for the place. We believe the people of Tehama thoroughly appreciate him, and will keep him in his present position.

SISKIYOU COUNTY.—The present incumbent, Supt. H. A. Morse, is again renominated for the superintendency. So well has Mr. Morse served the people in this capacity, that we believe his re-election is assured.

SOLANO COUNTY.—Mr. C. V. Webster, one of the brightest and ablest teachers of Solano, is the leading candidate for superintendent. An article from his pen will appear in our November issue. It will be seen from this, that should he be elected the schools of Solano will not suffer, but on the contrary, advance.

SAN BENITO COUNTY.—Supt. I. N. Thompson is a candidate for re-election. Prof. Thompson has distinguished himself as one of the leading superintendents of the State. The idea of partly apportioning the State school money on the basis of actual attendance was his. This innovation has done much good in advancing our schools. We hope to see him re-elected.

YOLO COUNTY.—In this county we are glad to see presented for re-election the name of Supt. J. W. Goin. Mr. Goin has made so able a public servant that all interested in the well-being of the schools will rejoice in his re-election. He is pre-eminently the right man in the right place.

YUBA COUNTY.—Here Prof. H. C. Babcock, who has for more than a year efficiently performed the duties of the office, during the illness of Supt. Steele, is the nominee. Prof. Babcock has done so well for the past year that we are satisfied he will ably fill the office in the future.

We are glad to note that Prof. E. K. Hill is back again as principal of the Marysville High School. With the exception of the few months' term of Prof. Kleeburger, Marysville has not really had a high school since Prof. Hill left, four years ago. The people are to be congratulated on having him back again.

STATE OF NEVADA.—We hear flattering accounts from this State of Prof. C. S. Young, in his canvass for the State superintendency. Prof. Young is a gentleman so pre-eminently qualified for the position, so scholarly, and so thorough a gentleman, that the teachers and school people should turn out *en masse* and see him elected. We are sure the people will elect him if they are taught to realize that under his administration a new educational spirit will dawn on Nevada.

BOOK NOTICES.

SWINTON'S MODEL BLANKS—WORD EXERCISES. By William Swinton. In eight numbers. New York: Ivison, Blakeman, Taylor & Co. San Francisco: Edward F. Adams, corner Sacramento and Sansome streets.

No. 1, *A Script Primer in Words and Sentences.* This first book contains one hundred lessons, introducing words to the beginner in their *script form*. The words and sentences should be written several times on the slates, and then copied into the blanks. This blank introduces to the child about five hundred common words, and gives him practice in their use in the form in which he will meet them in after life.

No. 2, *Phonic Spelling.* This affords pupils in the second school year practice in the writing of words arranged according to phonic elements. It includes about one thousand words selected from the vocabularies of the most approved Second Readers.

No. 3, *Grammatical Spelling.* This is intended to be in the hands of children in the latter part of their third school year. It gives the rules for our few inflected forms, with a large amount of transcription practice under each head. It assumes no knowledge of technical grammar whatever.

No. 4, *Etymological Spelling.* This presents the principal English suffixes, and nearly a thousand English roots—the pupil being exercised in the writing of simple derivatives.

No. 5, *Test Spellings.* This includes about two thousand four hundred of the more difficult words in actual use, grouped by resemblances and contrasts in a way to impress their orthography on the pupil's mind.

No. 6, *Test Pronunciations.* This includes the majority of English words (between eight and nine hundred in number) likely to be mispronounced. The correct pronunciation is shown by diacriticals; syllabication and accent and transcription by the pupil are required.

No. 7, *Synonym Writing.* This consists of a large amount of interesting and valuable practice in synonym writing, the pupil being required to select from given groups

of words two equivalents of each given key-word.

No. 8, *Latin Roots and English Derivatives.* In this blank the study of etymology is brought down to the comprehension of grammar-school pupils. One hundred of the most valuable Latin roots and their chief derivatives are given.

In almost every great advance in educational appliances, Prof. William Swinton seems destined to be a path-finder and leader. It was so in his language books, his spelling books, his geographies; it is now so in this series of books on the study of words, which for the ends designed stand alone, unexcelled; in fact, unrivaled.

It is not saying too much to claim that these blanks mark a new era in word-teaching—an era to be distinguished for a better knowledge of the mother tongue by the masses.

ECLECTIC MANUAL OF PHONOGRAPHY. A complete guide to the acquisition of Pitman's Short-hand, with or without a teacher. By Elijah Longley. Cincinnati: Robert Clark & Co., publishers. 1882.

This is a very neat little volume of one hundred and forty pages, well printed on good paper, and neatly bound in cloth. The style is clear and concise. The principles of each lesson are plainly and fully stated, and amply illustrated. As a textbook, it is probably not excelled by any other work of the kind. It is an exposition of Pitman's short-hand, "with some new contrivances of his own (the author's) thrown in," which make it so un-Pitmanic as to be quite illegible to one who has studied only Pitman's own works. As the author truthfully remarks in his preface, "The fact most to be regretted in this connection is, that all the American modifications of phonography differ as widely from the present system of Isaac Pitman, the original English author, as they do from each other. In England there is but one system, and harmony prevails among her many thousand phonographic writers. This is not so much the result, we learn, of unity

of views as the happy outcome of obedience to the law of copyright, which secure to Mr. Pitman the sole right to publish phonographic books in her majesty's kingdom."

In this work Mr. Longley abandons the corresponding style of phonography, thus rendering his system "impractical" for others than professional verbatim reporters. This deepens the conviction that it would have been well for the great body of those who would be benefited by the use of phonography, if Mr. Pitman's copyright had extended its benign influence over all English-speaking people.

PRIMARY PHONOGRAPHY. An introduction to Isaac Pitman's system of Phonetic short-hand, with a series of original exercises, written principally in the single characters of the phonographic alphabet, without contraction. By Ida C. Craddock, teacher of Phonography at Girard College. Philadelphia: Published by the author. Price, \$1.50.

The above extended heading already describes a new book on the study of Phonography. While this work is probably the best of its class, we believe the time is not yet ripe, perhaps never will be, when its study can profitably be made part of the school course.

THE ELEMENTS OF ENGLISH GRAMMAR.

THE INSTITUTES OF ENGLISH GRAMMAR.

By Goold Brown. A new and revised edition. By Henry Kiddle. New York: Wm. Wood & Co.

These books were always favorites with a majority of our ablest teachers on account of their many admirable features.

As educational science progressed, a revision became necessary, and nowhere could a more judicious, a more competent hand undertake the work than Ex-Supt. Henry Kiddle of New York.

Clear-headed, logical, and practical, the mantle of Goold Brown, the author of the grammar of grammars, has fallen on worthy shoulders.

The points of merit especially noteworthy in this edition are as follows:

1. The arrangement is simple and clear. All information is easily found.
2. The definitions are accurate and exact.
3. The explanations are ample without verbosity.

4. The subject of language-teaching, in the sense demanded by our best modern teachers, receives full and adequate attention. The exercises in construction and composition are very copious.

These and the exercises in false syntax and idiomatic constructions are particularly valuable. Teachers should examine this series.

S. R. Winchell & Co. have published the "Rules and Hints on the Theory and Practice of Teaching" for the teachers of the Chicago public schools. By Duane Doty, Ex-Supt. of Schools.

Some of these rules were a few years ago republished in the JOURNAL. The whole form a very useful little manual which all teachers should get.

TREASURY OF GENERAL KNOWLEDGE. By Celia Doerner. Part II. Cincinnati and New York: Van Antwerp, Bragg & Co. For sale by all booksellers.

The first part of this exceedingly useful little book was reviewed in the JOURNAL some months ago. A highly favorable opinion was then expressed—an opinion which this second part fully confirms. Our best institute conductors, and the drift of educational authority generally, hold that some instruction must be given (and is by our most competent teachers) in the science of common things. In giving such instruction, teachers have needed a hand-book, and these two books well supply that need.

They should form a part of every teacher's professional library, and should be found in the school library as well.

A HAND-BOOK OF MYTHOLOGY. The Myths and Legends of Ancient Greece and Rome. Illustrated from Antique Sculptures. By E. M. Berens. New York: Clark & Maynard. Introduction price, 75 cents.

The author's aim is to give the student a clear idea of the religious belief of the ancients, as a preparation for the study of classic literature.

The subject is presented in a very attractive manner, and well illustrated. The general reader who desires to learn something of the religious belief of the ancient Greeks and Romans will find this an interesting and instructive work, as will the student of the classics.

A GEOGRAPHICAL READER Compiled and arranged by James Johonnot. New York: D. Appleton & Co. San Francisco: J. T. White & Co.

The object of this volume is to furnish suitable reading matter for the pupil while he is engaged in the study of geography. The reading lesson and the geography lesson are made mutually helpful.

With such a book to furnish the matter, and wall-maps to supply reference, the learner readily gathers the pith of all geographical knowledge. The plan is an excellent one, and follows closely the ideas of John Stuart Mill, Herbert Spencer, and others who have written on the subject of geographical study.

Teachers will find this an invaluable acquisition on their library shelves.

A TEXT-BOOK ON COMMERCIAL LAW. By Salter S. Clark. New York: Clark & Maynard. Introduction price, 85 cents.

This book embraces the following subjects:

1. The Principles of Government.
2. A general view of State Governments, showing the practical application of these principles.
3. The Government of the United States; comprising a sketch of the Governments of the Colonies, of the Confederation, and of the causes which led to the formation and adoption of the Constitution; a description of the General Government, with a brief commentary on the several provisions of the Constitution.

4. Common and Statutory Law.
5. The Law of Nations; or, the usages and customs by which the intercourse of nations is regulated.

A superior work.

THE WORD METHOD IN NUMBER. A series of forty-five cards, on both sides of which are printed all the possible combinations of two figures. In box. By H. R. Sanford. Syracuse, 1881. 50 cents.

This will be found a useful contrivance to aid in teaching little children the elements of number.

It has many advantages over any other plan we have seen. The cards may be placed in the hands of pupils for practice work, and also used by the teacher for general class exercises. Teachers in primary classes will find it wise to get a set.

DIME QUESTION BOOKS, with full Answers, Notes, Queries, etc. No. 2, Literature, pp. 35; No. 3, Physiology, pp. 33; No. 4, Theory and Practice of Teaching, pp. 37; No. 6, U. S. History and Civil Government, pp. 32. By Albert P. Southwick, editor of *Notes and Queries*. 12mo, paper. Syracuse: C. W. Bardeen, Publisher. Price, 10 cents each.

These little books will be found extremely useful, not only for teachers' examinations, but in the daily work of the school-room. The plan of presenting each subject in a separate form has the merit of economy at least, as the teacher may purchase only such as he needs. The questions are very well selected, and presented in good shape typographically.

From Messrs. Ginn, Heath & Co., Boston, we have just received a very useful outline for readers and students, entitled "The Reader's Guide to English History," by William Francis Allen, A. M., professor in the University of Wisconsin. This book is very conveniently arranged, containing four parallel columns upon two opposite pages: the first column containing the English sovereigns in the several houses in the form of genealogical tables; the second, good historical reading, including histories, biographies, and essays; the third gives the novels, poems, and dramas illustrating that period of English history, also so far as possible arranged chronologically; in the fourth column are placed the same class of works illustrating contemporary history.

LITERARY NOTES.

The leading articles in the October *Harper*, which is a number of even more than usual interest to those living on this coast, are as follows: In Surrey (II.), illustrated, by Mrs. John Lillie; Flash: The Fireman's Story (a poem), illustrated, by Will Carleton; Medical Education in New York, illustrated, by William H. Rideing; Certain New York Houses, illustrated, by M. E. W. Sherwood; Dante Gabriel Rossetti, illustrated, by Mary Robinson; Old Miss Todd (a story), by Rose Terry Cooke; Southern California (I.), illustrated, by W. H. Bishop; The Spanish Discoveries, illustrated, by T. W. Higginson; Symmes and his Theory, illustrated, by E. F. Madden; The Railway Invasion of Mexico, by John Bigelow; Passages from the Journal of a Social Wreck, by Margaret Floyd; In the Wahlamet Valley of Oregon, with a map, by Ernest Ingersoll; Chief Justice Marshall's Eulogy upon his Wife, by Rev. D. Stevenson, D. D.; The History of Yankee Jim (a story), by Samuel Adams Drake.

The *North American Review* for October opens with an article on The Coming Revolution in England, by H. M. Hyndman, the English radical leader, giving an instructive account of the agitation now going on among the English working classes for a reconstruction of the whole politico-social fabric of that country. O. B. Frothingham writes of The Objectionable in Literature, and endeavors to point out the distinction between literature which is *per se* corrupting and that which is simply coarse. Dr. Henry Schliemann tells the interesting story of one year's Discoveries at Troy. Senator John J. Mitchell of Pennsylvania treats of the rise and progress of the rule of Political Bosses. Prof. George L. Vose, of the Massachusetts Institute of Technology, contributes an article of exceptional value on Safety in Railway Travel; and Prof. Charles S. Sargent, of the Harvard College Arboretum, contributes an instructive essay on The Protection of Forests. The *Review* is sold by book-sellers and newsdealers generally.

Among the contents of *St. Nicholas* for October are, The Famine Among the Gnomes, illustrated, by Hjalmar H. Boyesen; A Picus and his Pots, illustrated, by Maurice Thompson; Learning to Ride, illustrated, by Charles Barnard; A Story of a Very Naughty Girl, illustrated, by A. D. Plympton; To the Author of Jabberwocky (poem), by E. P. Matthews; O What are You at, Little Woman? (jingle), illustrated; Stories of Arts and Artists (tenth part), illustrated, by Clara Erskine Clement; Little Guido's Complaint (poem), by Margaret L. Preston; An Old Cross-patch (picture); The Sisters Three and the Kilmaree, illustrated, by Frank B. Stockton; The Riddle (poem), illustrated, by M. P. D.; A Surprise Party (play), by Mrs. Abby Morton Diaz; Donald and Dorothy (XXXII., XXXIII.), conclusion, by Mary Mapes Dodge.

The October *Lippincott's Magazine* contains: Norfolk, Old and New, illustrated, by Charles Burr Todd; Grand Manan, by Louise Henry; Fairy Gold (a story), illustrated; My Escape from the Floods,

by Annie Porter; A Fair Ascetic (a story), by Celia P. Woolley; My College Chums, by Henry A. Beers; By the Sea, by W. P. Foster; On Tumble-down Mountain (a story), by Sophie Swett; Bark Canoeing in Canada, illustrated, by "Kanuck"; The Shocking Example, by F. C. Baylor; Their Motto, by Mary B. Dodge; Camping on the Lower Wabash, by M. H. Catherwood; Our Monthly Gossip.

The *Atlantic* for October contains: Two on a Tower (XXVIII-XXXII), by Thomas Hardy; Among the Sabine Hills, by Harriet W. Preston; Storm on Lake Asquam, by John Greenleaf Whittier; An English Interpreter, by Horace E. Scudder; Cicada, by John McCarty Pleasants; Studies in the South (VIII); And Mrs. Somersham, by Agnes Paton; Fallow, by Lucy Larcom; University Administration, by W. T. Hewett; Pilgrim's Isle, by Thomas Williams Parsons; The House of a Merchant Prince (XIX, XX), by William Henry Bishop; The Nation of the Willows (II), by F. H. Cushing; A Shadow Boat, by Arlo Bates; The Red Man and the White Man; The Salon of Madame Necker; The Contributors' Club: Books of the Month.

The contents of the *Popular Science Monthly* for October are, Massage: Its Mode of Application and Effects, by Douglas Graham, M. D.; Literature and Science, by Matthew Arnold; What are Clouds? by C. Morfit; The Past and Present of the Cuttle-Fishes, by Dr. Andrew Wilson (illustrated); Mozley on Evolution, by Herbert Spencer; Explosions and Explosives, by Allan D. Brown; The Utility of Drunkenness, by W. Mattieu Williams; Delusions of Doubt, by M. B. Bill; The Progress of American Mineralogy, by Prof. G. J. Brush; Industrial Education in the Public Schools, by Prof. H. H. Straight; Physiognomic Curiosities, by Felix L. Oswald, M. D.; The Formation of Saline Mineral Waters, by M. Dieulafait; A Partnership of Animal and Plant Life, by K. Brandt; Sketch of Professor Rudolf Virchow (with portrait).

THE PUPILS' CORNER.

THIS department, which will consist of new, and in many cases original, declamations, poems, dialogues, music, and games, suitable for Friday afternoon exercises, will be under the editorial charge of MRS. ALICE LYSER. Teachers who have matter for the department, or suggestions in regard to it, are solicited to send communications to her address at this office.

SCHOOL-ROOM GAMES.

A (RIVER IN IDAHO) STORY.

ONE fine day a friend of mine named (two towns in Maine) suggested to me that we should take advantage of the (mountain in Alaska) by going to drive.

We trotted slowly past the (town in Kentucky), where an exciting game of (town in Wisconsin) was going on ; and after passing through the (town in Vermont) of the town, were soon enjoying the refreshing coolness of the woods.

Suddenly the horse gave a (point on the coast of England), and (city in West Virginia) in the narrow road, bordered by high (strait in British America), the carriage overturned, and we were both thrown out. Fortunately this did not prove a serious (cape in Australia), for we were but slightly bruised, and the horse made no attempt to run.

On looking about to discover a (bay in Ireland) to our steeds' fright, strange enough in such an unfrequented (lake in Canada) spot, I suddenly perceived in the middle of the road a large (sea of Europe) (river in Idaho), with (sea of Asia) spots.

While (town in Maine) was trying to right the buggy, I cautiously advanced, and seizing a (city in Arkansas), hurled it with all my force at the (river in Idaho).

My aim did not prove (bay in Africa), and the animal's head was smashed to (river in Australia).

"(City in Arizona), (city in North Carolina)!" cried my friend. "Hereafter in any such (bay in Australia), I shall rely on you to (river in Austria) me."

The coast being now once more (cape in Ireland), we finished our drive in (river in British America), without further excitement than that caused by a (cape in Newfoundland) with a team that tried to pass us.

I for one was glad to come in sight of the (city in Germany) of our little town ; and after a joyful (island in the Indian Ocean) with my family, was quite ready to say (cape in Greenland) to (town in Maine), notwithstanding his (cape in Washington Territory) on the subject of my bravery.

SELECT READING.

WHO SETS THE FASHIONS.

WHO sets the fashions, I'd like to know,
For the little people beneath the snow ?
Are they working a weary while,
To dress themselves in the latest style ?

There's Mrs. Primrose, who used to be
The very picture of modesty ;
Plain were her dresses, but now she goes
With crimps and fringes and furbelows.

And even Miss Buttercup puts on airs *
Because the color in vogue she wears ;
And as for Dandelion, dear me !
A vainer creature you ne'er will see.

When Mrs. Poppy—that dreadful flirt—
Was younger, she wore but one plain skirt ;
But now I notice, with great surprise,
She's several patterns of largest size.

The Independent.

The Fuchsia sisters, those lovely belles,
Improve their styles as the mode compels ;
And, though everybody is loud in their
praise,
They ne'er depart from their modest ways.

And the Pansy family must have found
Queen Elizabeth's wardrobe underground ;
For in velvets and satins of every shade
Throughout the season they're all arrayed.

Pinks and Daisies and all the flowers
Change their fashions as we change ours ;
And those who knew them in olden days
Are mystified by their modern ways.

Who sets the fashions, I'd like to know,
For the little people beneath the snow ?
Are they busy a weary while,
Dressing themselves in the latest style ?

DECLAMATION.

OUR FLAG.

RINGED about with the flame and smoke of rebel batteries, one solitary flag went down, torn and scathed, on the battered walls of Sumter. Then the slumberous fire burst forth and blazed up from the hearts of the people. The painted symbol of the national life, under which our populations of city and country has walked to and fro with tranquil footsteps, stirring its peaceful folds with no shouts of chivalrous and romantic deference, had been torn down and trodden under the feet of traitors. Every shred and thread of that mangled symbol was taken into the tender baptism of the nation's heart, and hallowed by the stern vow of the nation's consecration. It was torn down from a single flag-staff; and as the tidings of that outrage swept, raging and thrilling, through the land, ten thousand banners were run up on every hilltop and in every vale, on church towers and armed fortresses and peaceful private homes, till the heavens over us looked down upon more stars than they kept in their own nightly vault, and more stripes, white with wrath and red with vengeance, than ever flamed in the east of breaking day.

And then the cry went forth, "Rally round the flag, boys!" and every instrument of martial music took up the strain; and church bells pealed it forth; and church choirs sang it, as Miriam and Deborah sang of old; and mothers chanted it to their sons; and young wives gave it forth with dewy eyes and quivering lips; and sisters and sweethearts breathed it as a tender adieu to the brave lads, than whom nothing was dearer to them but God and country; and the voices gathered into a mighty chorus that swept over the New England hills and across the breadth of midland prairies, and dashed its waves over the summits of the mountains and down their western slopes, till they met and mingled with the waves of the Pacific;—the full unison echoing here through all your streets and homes, "Rally round the flag, boys! Rally once again!"

How well they followed the flag through four fateful years; how high they lifted it amid the tempest of battle; how often they baptised it with brave young blood, and blessed it dying; how they bore it on to full and final victory, and planted it where we think no hand of man shall ever assail it again,—is a story we need not tell to-day.

It has been blackened and torn on many a field, and in many a hurtling storm, but never dishonored. It is all the dearer and more sacred for its rents and its wounds. And though so mangled and torn, it is still one whole flag. All the stars are there. Some of them, with mad centrifugal movement, sought to break from their orbit and dismember the glorious constellation; but the centripetal force was mightier yet, and held them fast in that indivisible stellar Union. And coming through such peril of loss, and waving above us to-day so restored and complete, it has for us and mankind lessons of warning and of hope, of fidelity and duty, which are the war's legacy to the nation and to history, and which we shall do well to learn and to remember.





Yours truly
F. M. Campbell

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EDUCATORS OF THE PACIFIC SLOPE.—III.

FREDERICK McLEAN CAMPBELL.

M R. CAMPBELL is of the sturdy old Scotch stock, transplanted to the soil of New England. Six generations of ancestors on both sides were born and bred in Connecticut. His parents moved to New York City, where Frederick was born in 1837, the seventh son of a family of eight boys. His father, who died a few months ago at eighty, looked like a Scotchman. The dark hair and black eyes of the race, the stalwart frame, well-rounded limbs, and fine presence of Mr. Campbell, are a heritage from a long line of virtuous ancestry, of which he may well be proud. His mother was a Bidwell, a pious and lovely woman, who did not live to train her child after his fourth year. His early instruction was all obtained in the public schools of his native city. So eager and diligent had he been, that at fifteen he was made a teacher; and while in charge of a class, he attended an evening normal school. At eighteen he graduated, and at twenty married, and still continued to teach in the public schools. In 1858 he came to California. On the 3rd of September he took charge of the public school in Vallejo.

His fame as a successful teacher had gone abroad, and when the Rev. J. H. Brayton applied to John Swett for a teacher in the College School in Oakland, he recommended Mr. Campbell. And in 1861 he took charge of

that school, which, under his admirable management, became the leading one of the State.

The writer well remembers his appearance at that time. A slight-built, smooth-faced youth of twenty-three, with an eagle eye, that nothing in the field of vision could escape; a face radiant with the light of intelligence; a body firmly knit, with strong muscles and electric nerves; a gait and carriage and activity indicating power and endurance, and all the elements of command.

Nine years in that institution brought out all the latent powers of F. M. Campbell as teacher and manager of an academy of a high character. Scattered over this coast, in every State and Territory and adjoining countries, are scores and hundreds of men in the active pursuits of life, many in leading positions, who were pupils in that school, and their unanimous testimony is, that they never knew a better teacher. By heredity, Mr. Campbell is a believer in God and man. He is profoundly penetrated with the value of the human soul. He knows that man is in the universe to comprehend it, to subdue it; that in every normal human being there are ample capacities to be exercised, drawn out, trained, and drilled; that it is the solemn duty of the teacher to arouse the faculties of the pupil, and set him upon the search for knowledge. The true gauge of the capacity of the teacher is the measure of enthusiasm he can inspire in the learner. Having kindled this enthusiasm in the breast of the scholar, having compelled him to absorb from himself this intense desire to know all that finite minds may learn, it is easy to bring him under discipline.

He can make each boy comprehend that no progress in knowledge is possible without order, harmony, and exclusive devotion to the study in hand. That authority is exercised only to attain the end for which he is in school. That proper deportment and due decorum are absolutely necessary in every student, that all may emerge from ignorance and iniquity to learning and virtue. If vice, malignity, meanness, or mischief reveal themselves, they must be checked and subdued with a firm hand. If stupidity, heedlessness, or forgetfulness obtrudes itself, the memory must be quickened, the attention aroused and fixed. If punishment is necessary, then it must be inflicted, not in anger, but in sorrow and pity for the culprit that compels it.

Following these rules, even those who suffered under wholesome discipline knew they deserved it, and approved and applauded the man who administered it. Thus Mr. Campbell was always a popular teacher, though an excellent disciplinarian. It is not too much to say of Mr. Campbell that he is a born teacher. He has given his life to the work, and few have equaled and fewer still excelled him. So great was his success, that Mr. Brayton found his services invaluable, and voluntarily increased his salary to \$275 a month for the last years of his stay.

In 1870 he was chosen superintendent of the public schools of Oakland. Into this new field of labor he threw his whole soul; and by his untiring energy, activity, ingenuity, and skill, he brought the schools, step by step, to the highest state of efficiency. In the ten years of his incumbency, his power

over teachers, members of the board of education, city council, and the people was continually exerted and ever increasing. He made everybody feel that the schools were the first great care of government and people; that they should be the pride and boast of the city. He gathered the best men round him to second all his efforts; but he was always at the front, clearly the leader. If a new school-house was needed, it was built. The high school was cherished and enlarged, the best of teachers secured for the primaries, every detail of the work in every department was closely scrutinized, and every possible improvement introduced. Drawing and music were taught, and no spirit of beggarly economy was allowed to cripple the schools in any way. So high was the enthusiasm kept up that parsimony was shamed into liberality. Once in two years there was an election, and every time Mr. Campbell was nominated and elected. No matter what party was defeated, there were enough of all parties to keep Mr. Campbell in his place. When his name was presented for State Superintendent, testimonials of the highest character were signed by the clergy of all denominations, by the board of education, and the best citizens of all classes, and scores of his former pupils.

He was elected State Superintendent of Public Instruction in 1879. The adoption of the new Constitution almost revolutionized the school system. When the Legislature met, it was necessary to revise the school laws, and Mr. Campbell took hold of the task with his accustomed energy and industry. Consulting former superintendents and the best teachers, the highest educational wisdom was embodied in the new laws, and the committees of both branches of the Legislature adopted and recommended them. Then it required a prodigious amount of watching, care, and urging to get them passed. The files were crowded with important bills, and many were never reached; but the school laws were passed. Here is a word from Mr. Wason, the chairman of the committee of the Assembly, as to Mr. Campbell's share in that work: "But however anxious we legislators were to perform the work aright, we should not have succeeded without the aid of Mr. Campbell's intelligent judgment, wise advice, and untiring watchfulness at every step of its progress through the two Houses."

After the passage of the laws came the work of their execution. In this as in all the work committed to his hands, Mr. Campbell has acquitted himself with great credit. We have the testimony of nearly every county superintendent in the State to his great efficiency.

This testimony of Rev. Jesse Wood, superintendent of schools of Butte County, is a good sample of many:

"Hon. Fred. M. Campbell came to the office of State Superintendent of Public Instruction at a time when none but a *master* could have done himself credit in it—when it needed a *master* to adjust the law to the new order of things, and administer the new order until regularity and symmetry came out of the chaos which the new Constitution produced. I am a little enthusiastic in my admiration of the success which he has had in accomplishing the many difficult tasks which have been committed to his hands. I am glad to say that I think the State office has never been better filled than it has been by Mr.

Campbell. I pronounce his official administration a superlative success. I have been a teacher in California under four State Superintendents, and have held my present office under two."

In all the varied duties of his office, in county institutes, among teachers and school officers, everywhere he is a living power, stirring all to enthusiasm in the work of education. In *ex-officio* places, on the board of regents of the State University, or that of the Normal School, he has done his whole duty.

Mr. Campbell has five children of his own, and has adopted two, one of whom died at twenty last year. His eldest boy, twenty-two years old, has just completed his apprenticeship as a machinist at the railroad shops in Sacramento. One daughter is in the Sophomore Class of the University at Berkeley, another in the Junior Class of the Normal School at San Jose. The fifteen-year-old boy is a student; while the youngest attends a public school at Sacramento. Of Mrs. Campbell, as wife, mother, teacher, and deputy superintendent, words are too feeble to speak adequately.

I cannot close this sketch of the life, character, and deeds of Mr. Campbell without an allusion to his general usefulness. In the earlier days of Oakland, when every good institution was struggling to gain an assured place, and was making appeals to the public for help, the first man to be called upon was Mr. Campbell. He was always ready with heart, hand, and voice. At every fair or entertainment of any sort to aid any good cause, all felt that success was only certain when Mr. Campbell led. He never tired of helping others, and abounded in deeds of charity and beneficence for all the needy. It is never necessary to note the errors, failings, or shortcomings of any living man. There are always persons enough who can make no allowance for them, and can dwell on nothing else. The State and the lovers of education are about to lose the services of Mr. Campbell as Superintendent of Public Instruction, to the regret of all connected with the schools. And he bears with him in his retirement from office the best wishes of hosts of firm friends, who doubt whether they will ever again see in that office a teacher with greater capacity and renown, a superintendent with greater power to kindle enthusiasm for education among school men and people.

Oakland, Cal.

JOHN ELIOT BENTON.

HOW TO TEST TEACHING.—All teaching should be tested by its quality, not quantity. The greatest hindrance to mental progress is the demanding from pupils of a certain amount of work within a certain period of time. Command the tree to grow so much within six months, or you will cut it down. If you can do that, you have the power to command the youthful mind to learn one hundred and forty pages by heart in six months. Any one can teach a bright child. It is the dull boy that tests the real quality of a teacher. There is no doubt of success if you choose for school directors men who think more of the children than of their own political advancement. That's fundamental. Let all kind of iniquity be done, but don't touch the little children—the fortune of our great country.—*Supt. F. W. Parker.*

LANGUAGE LESSONS.

INTRODUCTION.

TO teach pupils to think and to express their thoughts in good language it is admitted by all to be an essential school duty. But how they shall be taught to think, has been often overlooked; still oftener, how they shall be taught to express their thoughts.

As a rule, pupils do not think severely while pursuing their studies, because they can so much more easily commit to memory enough of their daily lessons for the purposes of the recitation; and the lesson well recited is too often considered sufficient. Again: they fail to think because from their first entrance into the school they have not been taught to enlarge their vocabulary, or how to classify, and express in their own language, the ideas that are crowded upon them from day to day. Hence the necessity not only of requiring pupils to think, but also of securing good expression of the thought.

The child from six to eight talks freely and fearlessly, so far as being retarded by any doubt of the correctness of his language is concerned; but, as a rule, from this period thought and expression are hampered by lack of fitting words, or of aptness in arranging those at his command. This is a result of learning to read by a method which presents a multitude of ideas that do not accord with his habits of thought; or rather, do not take a natural place in his thoughts. A legitimate result of teaching by the old alphabetic method, with no effort made to connect the new ideas with those of his daily life, is that monotonous, high-pitched drawl which, having become habitual, is so difficult to correct. Such results are easily avoided by the use of the word and phonic methods, accompanied by familiar conversations upon the ideas found in the lessons from the first day of school. There is perhaps no period of life when so many new ideas are poured in upon the mind as during the first few months at school. For this reason special efforts should be put forth to have the pupils' ability to use and express those ideas keep pace with their acquisition.

To aid in this, language lessons are devised by which the pupil is expected to gain information, to gain a larger vocabulary, and especially to study out the best methods of expressing ideas.

To the teacher of this work we would say, that, to secure the best results, the work should be frequent, easy, and attractive, but thoughtful. The gaining of ideas, learning of words, and facility in expression, must keep pace with each other. No rules or directions can be given that will apply to all cases. Perhaps in no other study is it so essential that the teacher should have an active sympathy with the pupil, and the pupil a thorough confidence in the teacher.

By too great exactness, too much formality, and in numerous ways, the interest in the work may be destroyed. By just what means the pupils are to be drawn out into regular and enthusiastic action is in each instance a new problem. But the skillful teacher will solve it. In applying the work which

is to follow in a few brief articles, the teacher will find that a degree of perseverance and enthusiasm, together with discretion, will often lead to excellent results when least expected. The teacher should let the pupils join her in a pleasant criticism of the errors made by them either in talking or writing; but dealing with errors made by those outside the school-room, as well as those collected in grammars, should be avoided. It is better to spend the time in reading and discussing the thoughts of good authors and their manner of expression. Pupils learn more by studying a good model than by trying to improve a bad one. Take a little time each day for the presentation or discussion of topics. In ungraded schools, divide the pupils into a few divisions, and present the work to each separately.

Neither the simplest exercises nor the more advanced essays can be written until there is material for the writing; hence be sure that the pupils are well informed, and then be sure that the work is well done.

It is not expected that the following exercises will be taken up in any school in the exact order given here. The teacher must judge as to the proper work to give a class, the number of times it be given, and much other minutiae that can only be determined upon when the conditions are fully known. The teacher alone can do this. The amount of explanation, of giving information, of personal assistance, and of criticism will vary much for the different grades, and will require great care and discretion, especially on the part of the country school-teacher who has all grades. But remember the old maxim, "Never tell a child that which he can find out himself"; only be sure that he has the means and opportunity for finding out, and that he does it.

FIRST YEAR.

By skillful questioning and pleasant conversation about things of interest to the pupils, the teacher may beget such a feeling of ease and confidence on their part that they will talk freely.

So essential is this confidence that, if necessary, the teacher must for a while sacrifice other objects to secure and retain it. Criticism must be guarded; even serious faults in articulation and choice of language may often be overlooked. Liberal praise for good work and correct expressions will excite the ambition and strengthen the confidence of the pupil, while severe censure may do much harm. A quiet repetition of an inaccurate sentence, in correct form, is often more effective than more direct criticism.

If the pupils are animated and eager to ask and answer questions, a good beginning has been made. The following exercises are suggestive merely. Supply others of a similar character, taking care that they are not beyond the easy comprehension of the pupils.

1. Begin the language work with the first reading lesson. Ask questions about the picture which illustrates it—a cat for example. Get the pupils to tell about their cat at home. Show them the printed word *cat*, and ask them to find the word in other places on the page; then follow with some general talk about cats, or other things that are of interest to them.

2. In subsequent lessons continue the talks about the pictures, etc., lead-

ing them easily to the succeeding words; and take up other things, such as asking them to give the names of several things in the room. Ask them the uses of such things, or any other questions likely to excite interest and discussion.

3. Ask for the names of things which they can see out of doors. Get them to talk about the form, color, use, and other plain qualities of each.

4. Ask for the names of some things at home. Find out something about each.

5. Ask for the names of as many things as they can remember which they saw while coming to school. Ask them which were alive, which were made by man, which could walk, crawl, fly, or swim. Ask them to remember and be ready to tell the next morning what they saw on their way home or to school.

6. Ask for the names of things which they can see that are black; also for the names of some which they cannot see. Find out some other quality of each. In the same way take up some of the common colors, such as white, red, green, blue, and yellow.

7. Ask them to tell you what they do at home, at school, on Saturdays, etc.

8. Ask for the names of some animals which they have seen, and have them tell what each can do.

9. Ask for the names of birds. Have them tell what birds they have at home, and what the birds can do. Ask them if chickens, ducks, etc., are birds. Have the birds and animals described as far as possible as to size, color, habits, etc. Ask which run, which can swim, which can fly, etc.

10. Ask them to find the picture of an animal in their books, and to tell what it is doing. Have them tell what else they find in the pictures, and how many have seen the things pictured, and where they saw them.

11. By means of a rule develop the idea of a foot, and of an inch, and have the pupils compare objects within their sight as to size, shape, etc.

12. As early as possible have the pupils write their names, name of town, county, and state; also short sentences from dictation; as, I can play ball, I can pile up wood, I can write a letter to — who lives in —.

SECOND YEAR.

1. By comparison of objects, when possible, develop the use of words of comparison; such as good, better, best; long, longer, longest; soon, sooner, soonest. After a number of oral exercises, with the objects and without, write on the board sentences in which spaces for words of quality or comparison are left blank, requiring that such blanks shall be filled correctly. *Examples:* The apple is —. The bird flies —. John is — than his brother. That maple is the — tree in the yard.

2. Have the full name of one of the pupils written on the board; then teach the meaning of family or surnames, the given or Christian name, also the term nickname. Have the names of the town, county, state, and country in which they live also written on the board, and by the pupils on their slates, on several different days. Require in this practice the proper use of capitals and punctuation.

3. Teach also the use of capitals at the beginning of sentences, and that I and O are always capitals when written alone.

4. Teach the use of the hyphen in compound words, and words divided at the end of the line.

5. As early as practicable the pupil should write short sentences from dictation; as, I can see a chair; I can play ball and horse; I can pile up wood.

6. Have the pupils write from memory very short and simple stories that have been read or told by the teacher.

7. Have the pupils write about visits to town, to a fair, or what was done last Saturday, or what they would like to do next Saturday.

8. Let them tell or write what things they would like to have, and what they would do with them.

9. Have them write letters to each other describing things at home, at school, what was done on some holiday, etc. See that proper headings and endings are used; as,

Dear George—

What did you do yesterday? I went with Henry to visit his cousin John, and we, etc. Your friend, JAMES.

10. By means of questions get the pupils to name the parts of the head, face, arms, hands, legs, and feet; also the motions of each; as raising, bowing, shaking, nodding, and turning the head; bending, stretching, twisting, folding, swinging, and thrusting the arms; walking, hopping, skipping, jumping, dancing, kicking, and other motions with the legs. Avoid strictly technical terms for the parts of the body, unless they are such as are used in common conversation.

11. Require pupils to write sentences using one of the following words in each: marbles, picture, nest, kite, etc. Afterwards give them lists of words, two or three of which shall be used in each sentence; as horse—cow, tree—road, fire—water, story—in reader—boys.

12. Encourage the pupils to bring plants and other objects, such as can be used to illustrate the terms root, stalk, branch, leaf, bud, flowers, fruit, seed.

13. As much as possible by use of objects, teach pupils such qualities as square, round, triangular, straight, curved, crooked, irregular, rough, smooth, plane, hard, soft, sticky, and brittle. Have the objects in the room described by means of these terms until they can use them readily.

14. In brief lessons teach the modifications of the common colors by means of the words light and dark; as light green, dark blue, etc.; and have these terms used in the description of objects.

15. Require each of the class to write as many sentences as he can about some object which he can see and examine; as table, chair, knife, etc.

Note.—These exercises are not intended as single lessons. Many of them contain material for several. The inexperienced teacher will be likely to undertake too much rather than too little in a single lesson. Time should be spent on this work every day, but it should be short, perhaps not more than ten minutes at a time.

W. R. COMINGS AND H. C. KNOX.

In *Ohio Educational Monthly*.

A KING IN DISGUISE.

MY brain is dull, my hands are tired,
I have no heart for work or play ;
Just let the hours go as they will,
I can do naught at all to-day.

Life's battle does not need my aid ;
I'll lay aside my sword and shield ;
To-morrow, perhaps, with better heart
I may be glad to take the field.

What is To-day ? A few short hours
In which men toil, or think, or weep.
I'll let them idly drift away,
And sleep and dream and dream and sleep.

" What folly ! " cried my better self.
" Lift up thy drowsy heart and eyes.
What is To-day ? He is a king,
A mighty monarch in disguise.

Harper's Weekly.

" His hands are full of splendid gifts—
Honor and wisdom, wealth and fame.
Haste thee ! perchance this very hour—
This only hour—he calls thy name."

Then anxiously, with eager haste,
I went and stood in duty's place ;
And just at noon tide's weary hour
Fortune and I met face to face.

She said, " I've waited here for thee,
And half I feared thou wouldest delay.
Now what the past has still denied
Is thine with tenfold grace To-day."

What is an hour ? Oft fortune, fame,
Of weary years the goal and prize ;
What is To-day ? Go serve it well,
Perchance a monarch in disguise.

LILLIE E. BARR.

BY THE ALMA RIVER.

WILLIE, fold your little hands ;
Let it drop—that "soldier" toy ;
Look where father's picture stands—
Father, that here kissed his boy
Not a month since : father kind,
Who this night may (never mind
Mother's sobs, my Willie dear)—
Cry out loud, that He may hear
Who is God of battles—cry,
" God keep father safe this day
By the Alma River ! "

Ask no more, child. Never heed
Either Russ or Frank or Turk ;
Right of nations, trampled creed,
Chance-poised victory's bloody work ;
Any flag i' the wind may roll
On thy heights, Sevastopol !
Willie, all to you and me
Is that spot, whate'er it be,
Where he stands—no other word—
Stands—God sure the child's prayer's heard,
Near the Alma River.

Willie, listen to the bells
Ringing in the town to-day ;
That's for victory. No knell swells
For the many swept away—
Hundreds, thousands. Let us weep,
We, who need not, just to keep

Reason clear in thought and brain
Till the morning comes again ;
Till the third dread morning tell
Who they were that fought and—fell
By the Alma River.

Come, we'll lay us down, my child ;
Poor the bed is—poor and hard ;
But thy father, far exiled,
Sleeps upon the open sward,
Dreaming of us two at home ;
Or, beneath the starry dome,
Digs out trenches in the dark,—
Where he buries—Willie, mark !—
Where *he buries* those who died
Fighting—fighting at his side—
By the Alma River.

Willie, Willie, go to sleep ;
God will help us, O my boy !
He will make the dull hours creep
Faster, and send news of joy,
When I need not shrink to meet
Those great placards in the street,
That for weeks will ghastly stare
In some eyes— Child, say that prayer
Once again— a different one—
Say, " O God ! thy will be done
By the Alma River."

D. M. MULOCK.

A HOODLUM.

CHAPTER XI.—CHOOSING HIS LIFE WORK.

WHAT shall I do, and what shall I be, when I am a man? is a question which often arises in a boy's mind; but in most cases, the youth drifts into those channels which first present desirable openings, and if the work is not too distasteful, habit keeps him from changing his trade or profession until the time for fitting himself for some more congenial pursuit is past.

But few boys really prepare for a trade or profession, so as to take a master's place in their life-work. The American boy is always desiring a change. Some other work looks pleasanter than what he is doing; some other business seems more profitable.

In spite of the popular belief that every person is peculiarly fitted for some one work, the great majority of boys have no especial fitness for one business more than for some others. With the careful training which Carl had given him, bringing out to good advantage the boy's naturally good abilities, Donald would have succeeded well in several pursuits. He had the making of a fair mechanic; with proper diligence and opportunities, he would have made a good artist; he was quite successful in the garden and in the apiary. Carl really thought he would succeed best as a lawyer; but when the two had discussed the trials and compensations of various kinds of work in many a pleasant talk, Donald surprised Carl by expressing a desire to fit himself for teaching. Carl having once been a teacher, there were several works on Theory and Practice, school tales, journals, etc., in his library, and Donald had read and pondered over these until he had determined to fit himself for a teacher.

Aided by Carl's experience and suggestions, he drew up the following table, in order that he might better compare the advantages and disadvantages of teaching as a profession:

<i>Advantages.</i>	<i>Disadvantages.</i>
Sureness of pay.	Compensation small.
Plenty of employment.	Insecurity of position.
Experience increases efficiency and wages.	Unfits for other work.
Expenses of living are light.	No permanent home.
Few hours of labor.	Work (worry) wearing.
Time for study.	Primary work belittling.
No dry years.	Employment not constant.
Pleasant acquaintances.	Few permanent friends.
Love of pupils.	Growling of patrons.
Nobleness of work.	Unappreciated.
Helps the future of others.	Hurts one's own future.
Controls others for good.	Pupils' bad home training.
Bright, pleasant pupils.	Dull, disagreeable pupils.
Security of capital (brains).	Can save little for old age.

"If we had a proper scales to weigh them, I am sure the advantages would outweigh the disadvantages, two to one," said Donald. "The wages are not very small, especially when one gets a good name for teaching; and then good teachers are not so plenty that he cannot get another place if the first don't suit."

"Teaching may unfit for other work," continued Donald, "but if teaching is my profession, I don't need to do other work; and as for a home, I think I ought to make myself at home anywhere after my experience in San Francisco."

"And Camp Comfort," added Carl, smiling.

"Then I don't intend to worry, and that covers most of a teacher's hard work; and I don't intend that primary work shall be my mental exercise, but my relaxation. A good teacher who watches chances can get employment thirteen months in the year if he wants it; and if he don't run about too much, he can have all the friends he needs."

"And is bound to make more or less enemies wherever he goes," said Carl.

"Let your enemies alone, or shame them with kindness," Donald replied; "coax or smooth down your growling patrons, and as for being unappreciated, that hurts our vanity more than it wounds our better feelings."

"And as for future advancement," said Carl, imitating Donald's tone and manner, "when the people of Santa Barbara get enlightened enough to choose a real live teacher for county superintendent, who so likely to be chosen as Professor Donald Benson, the popular and distinguished principal of the Santa Barbara Branch Normal School?"

"Why not State Superintendent or U. S. Commissioner of Education at once?" inquired Donald, composedly. "As for dull pupils, I suppose every teacher has those, and disagreeable ones too; but a good teacher can brighten up even a dullard, and improve the manners of those who are not agreeable. See how you have improved me," he added slyly.

"And when you are a worn-out old bachelor, with no home, wife, or children, with little money and ruined temper, full of whims, conceits, and school-master ways, what then?"

"Then I'll go to San Francisco," replied Donald, archly, "and find a stray hoodlum to adopt and to educate, and he will take care of me."

"I am afraid," said Carl, laying his hand affectionately upon the boy's shoulder—"I am very much afraid that your hoodlum would not turn out so well as I expect mine to. Hoodlums are uncertain property, and it won't do to invest too heavily in one."

"Wait until you see yours at the head of some big college, and then you won't give such advice. I have so often wished," continued Donald, earnestly, "that I might sometime give some poor boy as good a chance as you have given me."

So it was decided that Donald was to become a teacher, and henceforth his aim was to prepare for the work in the best way he could. He paid greater attention to his tasks, for a teacher's knowledge must be far more

extensive and accurate than a pupil's need be. A teacher should possess a great fund of information of a general nature, too, for questions outside of the text-book are continually arising, and though a teacher is not expected to know everything, the more he does know the better.

Donald reviewed the primary work in the most thorough manner, for Carl told him that this part was the most essential to know, as he would use it the most; and unless he was able to start pupils well, their advancement would always be uncertain.

Donald had now been at Camp Comfort for four years, and was much farther advanced in his studies than most boys of fourteen, for Carl had taught him with a great deal of care; and the writings of standard authors and Carl himself had been the lad's constant associates. So much depends upon the company one keeps. The tone of thought, the interest in certain pursuits, the aims of life—all are colored by the opinions of one's associates. Yet it is not well to associate too exclusively with one kind of people. They who are brought up to believe that this is the only right way, and this the only true belief, without giving fair and due consideration of what might be said on the other side, such people become narrow-minded and bigoted, incapable of forming correct, unbiased conclusions.

Various places in the West have been settled by colonies of people from one country, speaking the same foreign language, or having the same religious belief. The people in these communities invariably fall behind those kinsmen and neighbors who mingle with the world, adopting to a certain extent the languages and customs of the people about them. The children of these latter are truly Americanized; while the children in these communities are as foreign and un-American as though they had been born and brought up in another country.

Even the temperance colony at Lompoc, dwelling continually upon the one side of the liquor question, have become so forgetful of their other duties as citizens, as to try to drive a liquor-seller from their midst with bomb-shells instead of civilized weapons.

Carl had always tried to impress Donald with that broad catholicity of spirit which every true teacher should possess, and which sees error none the less clearly because it recognizes a multitude of excuses for error and false belief. How can we expect true and noble actions from warped, diseased minds?

Carl told Donald that every teacher should have as thorough a knowledge as possible of—

1. What he expected to teach.

2. The best ways to present and illustrate his lessons.

3. The human body and mind, especially his own capabilities and failings.

4. The mechanical work of teaching, government, etc., as gained by experience.

Added to this knowledge, he should have good health, good morals, pleasing manners, and enthusiasm for his work.

In passing examination, only the first of all these requirements is looked after with any degree of thoroughness. While it is of the utmost importance that the teacher shall not be ignorant, learning alone is of little use to a teacher, especially that inferior kind of learning which is book knowledge merely.

There was little doubt that Donald would have plenty of time to acquire sufficient knowledge to pass a good examination long before he was sufficiently old to teach.

In order to learn the best ways to present his lessons, Donald was advised to spend a year visiting good schools, attending institutes, talking with teachers of reputation, and comparing all this work with what standard writers on education have advised. In order to pay his expenses while he was doing this, Donald thought he could canvass for good books, apparatus, etc., which he could dispose of to the various school libraries. But Donald would never follow the example of most of the book agents, who carry around almost worthless books, maps, etc., which they dispose of at exorbitant rates to districts who do not use them after they are purchased.

Carl laid out a course of study in physiology and psychology, and also planned a series of experiments in connection with Donald's readings. Such books as Spencer's "Psychology," "Mind in Lower Animals," "Mind and Body," "Seguin on Idiocy," Maudsley's works, and others, were to be read and re-read, though much in them was beyond the boy's full understanding.

To gain the experience which it is necessary for every teacher to have, and without which no one should be given a certificate, Donald intended to get a number of Spanish children living at the foot of the mountain to come to Camp Comfort for a couple of hours or more each day, led by the promise of a good dinner, and the prospect of earning a little money, fruit, or honey by the work which they did outside of study hours. Two or three years of such work under Carl's supervision, would give Donald nearly as much experience in teaching as a normal student gets during his last year at the Normal School.

CHARLES M. DRAKE.

Santa Paula, Ventura Co.

THOU can't not change one little drop
That heaven hath mixed for thee;
However bitter be the cup,
It may thy healing be;
And in its dregs thy sweetest hope,
Thy soul at last may see.

—*From the Greek.*

THE good things which belong to prosperity are to be wished, but the good things which belong to adversity are to be admired.—*Bacon.*

THE COMET.

ITS ORBIT, PERIODICITY, IDENTITY, CONSTITUTION, AND PROBABLE END.

THE eccentric visitor to our planetary domain, which is now flaming in the eastern heavens before daybreak, presents features of peculiar interest, not only to astronomers, but also to the public at large. So much conflicting testimony has been produced from so many sources regarding its direction, its rate of motion, and its identity with comets which have previously approached the sun, that it is a matter of difficulty for the public mind to convince itself upon these matters; and it is fain to fall back, in a helpless sort of way, upon the ancient *mot*, "Who shall decide when doctors disagree?" Still, it is hardly fair to astronomers to expect that they shall compute the elements of a comet's orbit with perfect accuracy from a few initial observations (though theoretically this can be done), for the reason that their calculations must be based upon the hypothesis that such orbit is parabolic, and

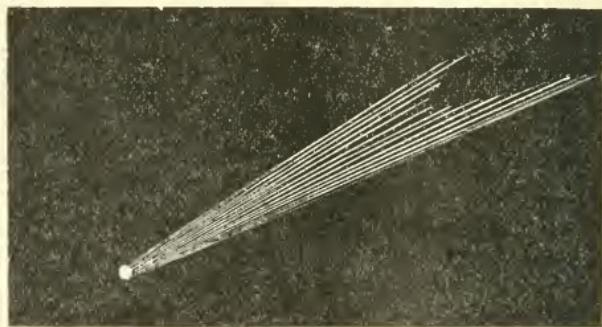


Fig. 1.—THE COMET OF 1882.

corrections must subsequently be made if it be afterward found to be elliptical. In the present instance, the weight of authority favors an elliptical orbit, with a period of between eight and nine years. Still, even this hypothesis must be accepted *cum grano salis*, since upon its heels comes the question, What has this comet been doing during its back periods that it has not been seen, and its identity fixed and recognized?

Let us proceed to examine into what is fairly presumable regarding (1) the orbit, (2) the periodicity, (3) the identity, (4) the constitution of this comet, and so arrive at some reasonable conclusion regarding it.

1, *The Orbit.* Comets move in orbits of three classes, answering to the conic sections, the ellipse, the parabola, and the hyperbola. Those which move in an ellipse return to the center of attraction at definite intervals, dependent upon the nature of the ellipse; while those which move in parabolic and hyperbolic curves swing off into space, moving ever onward till they fall within the attraction of some other sun.

In order to make the orbit of the present comet easily comprehensible, reference may be had to the accompanying diagrams.

Fig. 2 gives an idea of the inclination of the comet's orbit to the plane of the earth's orbit. The inclination has been variously estimated at from 17° to 26° ; but either is sufficient to send the comet far south of the plane of the ecliptic, and therefore preclude the possibility of its coming in contact with the earth. In both diagrams *E* represents the position of the earth in its orbit, *S* the position of the sun, and *CC* the projection of the comet's orbit

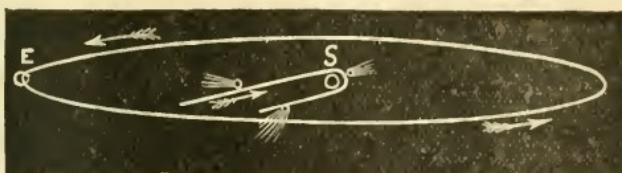


Fig. 2.

upon space and its relation to the earth's orbit, whether viewed as in Fig. 1, longitudinally, or laterally, as in Fig. 3. The positions of the comet, on both sides of its perihelion, are indicated in the figures, its motion being retrograde; i. e., proceeding from left to right in the diagram, or from south-east to south-west, as compared with the course of the earth in its orbit. There is no longer any doubt that this is the same body discovered by Mr. Cruls at Rio Janeiro, on September 11, when it apparently occupied its left-hand positions in the diagrams. On or about the 17th of September it passed its perihelion point, or point of nearest approach to the sun, when it commenced its return journey into space, occupying at the present time, approximately, the right-hand positions indicated in the diagrams. Its perihelion distance is surpris-

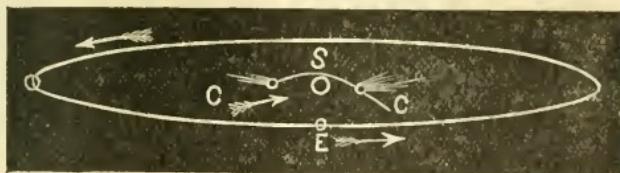


Fig. 3.

ingly small, there being only one comet—that of 1843—which is recorded as having passed within so close a distance to the sun. This distance is estimated at 800,000 miles from the center of the solar sphere; or, taking the sun's diameter at 880,000 miles, less than half that distance from its exterior surface.

2, Its Periodicity, or the Time it takes to Execute One Revolution. Here, again, we are not yet justified in approaching a definite conclusion, though the conditions of observation are now no favorable that such conclusions will certainly be reached before the wanderer recedes beyond astronomical ken. There seems to be no doubt that its orbit is an ellipse of comparatively circumscribed limits, though this very fact renders the absence of previous record most mysterious, and leads us to the very important, and perhaps the most interesting, consideration of all; namely,

3, *The Question of Identity.* When comets are found to move in the same plane and along the same curves, and to approach the sun to nearly the same distance at perihelion, it is very strong evidence of their identity. When their general appearance is similar, the testimony is strengthened; and when we consider the vast number of these wandering bodies, and the countless variations of path and inclination in which they are free to move, it seems well nigh impossible that any two which fulfill the same conditions should not be actually identical. The present comet has been found to resemble two other recorded comets—those of 1843 and 1880—so closely in its path and perihelion distance that several eminent astronomers, including Professor Boss, of Albany, and Richard A. Procter, have been forced to the conclusion that these three several comets are identical. But in admitting this fact, we are at once brought face to face with some apparently irreconcilable incongruities. From 1843 to 1880 gives us a period of thirty-seven years, which, if the hypothesis is available, falls at one bound to somewhat over two years. There are only two ways of reconciling this inconsistency. The first is to suppose that this comet has made several intermediate returns to our system between the first-mentioned two dates, but that, owing to our position in space at the time of such returns, its advent was unknown to us. This is a plausible solution of the difficulty, as there is no doubt the vast majority of comets do approach the sun, and wheel back again into space without ever becoming visible to our gaze. A comet approaching the sun from the opposite quarter of the heavens to that which the earth occupies at the time of such approach, would have its perihelion fall between us and the sun, and its hither and backward course would fall within the influence of the solar rays. It is therefore only necessary to suppose that each intermediate return was made under such conditions. Still, this would not satisfactorily account for the lack of records of previous appearances, for it is stretching the privileges of accident too much to suppose that all the previous returns of this comet were made in like manner.

The other hypothesis on which this comet could be identified with those of 1880 and 1843 demands that its periodicity be growing shorter in a startling ratio of geometrical progression. Nor is this theory so inconceivable as at first sight it may appear. A body which approaches the sun so closely as does this comet must do so at the expense of its centrifugal energy. At each successive approach, the centripetal attraction is intensified, and thus it leaves the neighborhood of its dominator at a more acute angle of orbit. The initial impetus and direction thus given exert an effect over the entire orbit, and this effect is discernible in a shorter and more speedy return on each successive occasion. The orbit of a comet under such conditions would not form an ellipse, but a succession of ever-narrowing eccentric spirals, as shown by the diagram in Fig. 4. Here, the dark interior circle *S* at the right hand represents the sun, *P* the perihelion point of the comet, and the spiral path of the comet's orbit follows the direction of the arrows.

This hypothesis is perfectly tenable, and is indorsed by some of our most eminent and broad-minded physicists. There is, of course, but one termination to a comet with a path like this; namely, absorption into the body of the

sun. At some point in its progress, at or near perihelion, it will encounter a resistance in the sun's atmosphere, which even its estimated speed of three hundred and seventy miles a second—nearly ten times as great as that of our earth—will be unable to withstand, and it will sink within the atmosphere or luminous envelope of our flaming center, never to appear again. A consideration of what the probable result of such a catastrophe would bring us to—

4, *The Constitution of the Comet.* This is a subject still involved in mystery, and one which has baffled even the investigations of the spectroscope. Most comets consist of two elements or factors: one denser, called the nucleus; the other rarer, known as the train or tail. Encke's comet, a small body of short periodicity, is an exception to this rule, and merely appears as a luminous nebulous ball without either nucleus or tail; but the first mentioned conditions

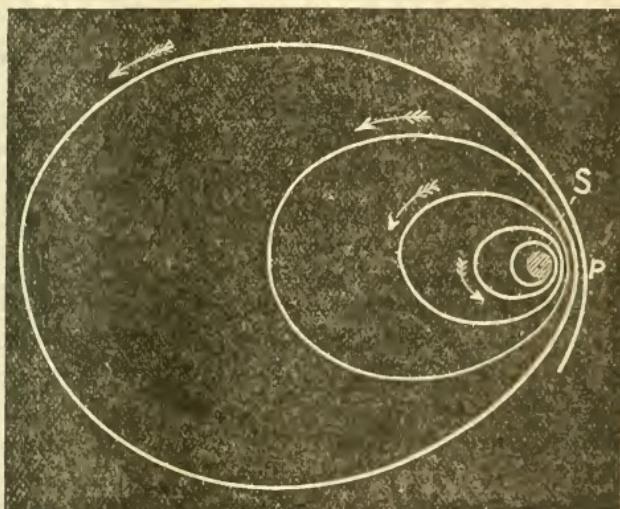


Fig. 4.

are most commonly fulfilled in kind, though displaying as great eccentricity in form as in orbit. The most generally approved theory of cometary constitution is, that these bodies consist of metallic and gaseous elements, identical with those which exist in all known spheres throughout space. There is no reason for doubting—nay, there is every reason for affirming—this theory of cometary composition. The spectroscope gives us the known lines of several elements, and everything points to the conclusion that the nucleus, at all events, of a comet consists of metals and gases in a state of high volatilization. What may be the constitution of the train or tail, admits of much greater latitude for speculation. It is natural to infer that a close approach to the sun at perihelion should make the elements composing the nucleus glow with a fierce incandescence, since it is the nucleus which possesses a certain solidity, else it could not possess the *momentum* necessary to carry it beyond the attractive influence of the sun. But it is not so clear that the ethereal matter composing the train should be rendered luminous to its utmost extremity while

near the sun, and should lose its radiance thereafter, on any recognized hypothesis of dynamics or light. That this matter, whatever be its composition, is extremely tenuous, has been proved by the fact that stars shine through its mass without loss of brilliancy.

The suggestive circumstance that this train usually points directly away from the sun, in a straight or nearly straight line, has led to the inference that the nucleus may act somewhat like the convex lens of a magic lantern, and project the light of the sun upon an ulterior atmosphere surrounding the nucleus. It must be confessed that it is easier to conceive of a semi-transparent convex nucleus obeying a recognized law of optics, and projecting a conical shaft of light upon a receiving ground of atmosphere, than to conceive of a shaft of luminous vapor 10,000,000 miles long (as the train of the present comet at least is), sweeping through a nearly semi-circular arc, the dimensions of which arc would give—allowing a speed of 370 miles a second for the nucleus while rounding the sun for the space of four hours—the enormous speed for the extremity of the train of 32,000,000 miles in the same time; or 8,000,000 an hour, 133,333 a minute, or 2,222 miles a second. It is easier, we repeat, to conceive of a shaft of light being projected upon different portions of a nebulous atmosphere surrounding a comet at all points than to conceive of a tenuous body sweeping round through space at a speed which would disintegrate any forms of matter of which we have any experience. Nor does the fact that comets have been observed with two or more tails, and with tails curved in every possible direction, militate against the soundness of such a theory, for a nucleus whose component parts were of varying degrees of density would refract the solar beams unequally, and give rise to such trains or projections of light. Varying density of the nebulous envelope itself would produce the same result. This hypothesis will also explain naturally the diminished radiance of the train as it recedes from the solar influence, and its decrease in length, which is not so easily accountable on the grounds of the increasing obliquity which it presents to us as it is by the rapid condensation of the nebulous medium which reflects the sun's rays; since there is reason to believe that comets only become luminous and incandescent, and their nebulous envelopes correspondingly rare and extended, while close to the sun, while at the aphelion of their orbits they are probably nothing else than spheres of chilled metals and gases traveling sluggishly on through the cheerless blackness of a thousand-fold Arctic night.

It is extremely difficult to divine the result of such a catastrophe as the precipitation of a comet upon the sun, or a collision with our planet. The dynamical effect of such events simply depends upon the density, mass, momentum, and composition of the comet. The momentum of the comet at perihelion is such that, were its nucleus composed of solid material, the shock of precipitation upon the sun would engender such an amount of frictional heat as would be felt to the utmost limits of the solar system. There is every reason, however, to suppose that cometary matter at perihelion is so volatile and rare that it would sink into the vast solar furnace without any appreciable augmentation of our central fire. It has even

been scientifically suggested that hundreds of comets fall annually into the sun, and go to repair the waste arising from the constant radiation of heat and light into space. A collision with our planet, however, would depend for its results—admitting the gaseous nature of a comet—upon the nature of the gases which composed it. It is perfectly admissible to conceive of a comet whose principal element was hydrogen, combining with the oxygen of our atmosphere, and precipitating upon our surface such devastating floods of water as it would be impossible for the higher forms of animal and vegetable life to withstand; or of one composed of nitrogen, whose contact would destroy all life from the face of the planet; or, say, carbonic acid, which would have an equivalent effect; or a still larger proportion of hydrogen, which would refuse to combine with our atmosphere in the proportions HO_2 , but would doom us to a fiery death. In short, the possibilities for injury are as boundless as the chances for any such casualty are infinitesimal.

ROBERT DUNCAN MILNE.

In *Argonaut.*

ONE WEEK AS AN EMBRYO TEACHER.

MANY and many a time, when trudging through the snow up North, or taking a short cut to school through the fragrant woods down South, have I longed for the moment when I might once be addressed by the title of teacher. Last week that wish was gratified, not in either of my old homes, but in a city which I had never even dreamed of seeing.

My lot fell to neither a kindergarten nor a primary, but to a "receiving" class in the Bush Street Primary School. What dignity I assumed when being led to the room I was to take charge of! But when the door opened, and I saw within, lo! my dignity had a fall, for before me sat "four" scholars. However, I assumed the responsibility of this very large class, and proceeded to find out their names. One small boy sang out in a very loud key as his name, "Rastis Otis James Pendleton!" These four scholars represented the nations of Italy, Spain, Russia, and America.

As the Grube method was uppermost in my mind, I proceeded at once with it by means of buttons. Having made one little girl stand and be seated, I asked how many little girls were yet standing. I received the brilliant answer of "seven." I was almost overcome by this; but insisting upon being told where the seven were, Erastus informed me that they were in the other room. Recess came at last; my flock of four gathered around my skirts, and together we proceeded to the yard. We were the cynosure of all eyes, and soon became the center of a crowd of children. All were delighted with the little midgets, and the larger girls and boys clamored in one voice that they, too, would bring their sisters and brothers. What quite amused me was, that the children supposed I was the regular teacher, and that by bringing their small relatives I must necessarily be under great obligations to them.

In the afternoon the number of four swelled to nine. One little boy

was not yet in boy's clothes, and certainly could not have been over three. His head was one tumble with brown ringlets. At noon-time I received some pretty flowers. A few of the older girls politely requested my age; thought I was young to be a teacher, that my scholars were very "cute," and such similar remarks as they thought would please me.

During the afternoon I told the children that they might have a whispering recess; but that phrase so familiar to our ears was but Greek to them. Recollecting myself, I said: "Children, you may talk." It was evident that they understood the Anglo-Saxon, from the hubbub which followed. At last the dismissal time arrived to end my first day as a teacher, and theirs as scholars, for it was their first day at school.

The second morning my scholars numbered fifteen, and proud I felt to have my gallant little troop march in file with the larger pupils. It seemed to me in those few days that I had suddenly been transformed into the mother of a family.

It is no easy task to take under your care little children, some without any home training whatever—not one perceptive faculty awakened; all their mental powers lying dormant. I realized for the first time what this home training does for a child. Without it, they are like little animals; with it, they become interesting, quick, and lovable. What, then, are those deprived of this privilege to do? It is only the kindergarten that fills this needed gap, and a blessing it is to the little folks now, and it will continue so to them through life.

One fault each and every child possessed alike. That fault was the habit of tattling. If one child merely laid its arm on that of another child, the injured one must come and tell the teacher. They seemed to do naught but watch each other's actions. This I tried to nip in the bud; for if there is one ugly trait in the human character, I think it is that of tale-bearing.

The succeeding days were much the same, except that the number increased, and the answers grew daily brighter. One of the boys, that same Erastus, I feared would be the death of me before the week was over. I concluded on Friday that he was pretty well broken in, when alas! he got up and turned a somersault for the others' amusement. This boy was one of my brightest scholars; he was brimming over with animal life.

Friday afternoon came, the little ones were dismissed, and so ended one week as an embryo teacher.

That night I dreamed that twelve years had passed, that I had become very matronly in my maidenhood, and that dropping into this very room I beheld one of my first pupils reading a composition on her early school-days. She spoke of her first day at school, her various trials, and of her teacher, who still wore short dresses. Mr. Swett, whose head was now crowned with the purest silver locks, tipped back in his chair in the self-same corner, and smiled in the good old way.

BLANCHE E. LEVIELE.

— Normal Class, S. F. Girls' H. S.

PEDAGOGIC PERCOLATIONS.

THE first meeting for the reading of prize essays took place October 17th, 1882. The class, consisting of principals, had chosen for a subject : "Waste of time in the school-room, and how to avoid it." Six excellent essays were read, showing much thought and originality. Although it was arranged so that the authors of all but the successful paper might remain unknown, they ought to be proud of the impression made by them. Indeed, it was difficult to choose even when free from personal bias, and protected by secret ballot. Probably the choice was generally determined by the concise practicalness of essay E, written by Prof. Anderson. The poetical beauty of A, the pungent but too personal brilliancy of C, and the strong attack on aged errors of F, were especially worthy, and through the press should find a larger audience.

"Pedagogic Percolations" pass through such an opaque filter that only the thinnest of matter can appear. Therefore, care should be taken to prevent weakening the result by incorrect publication. When the errors are grammatical, I am sure all will recognize typographical mistakes ; but when obstructed as in the September JOURNAL, I must pick out the offending matter. I will repeat the sentences as they should have been given : "Lounging in seat, movement, or walk should be sharply condemned as offensive in itself, and typifying a disposition to despise public opinion and social culture. Uncouth gestures, like raising either arms, first one, then the other, in a frantic manner, and at full length ; shaking the hand and snapping the fingers should be reproved ; and the quiet, modest signal of the right arm only raised from the elbow encouraged." I confess I might have written with more perspicuity, but the native want of clearness was enough.

Again I wrote : "The one to whom all children are fiends simply sees her own image reflected in a mental activity springing to meet her own mental state." The sentence lost point by substituting friends for fiends. Perhaps such a teacher was thought impossible, but I gave no imaginary character.

When our citizens are enlightened enough to have appointed and pay a Board of Education to devote its entire time to school supervision, we may hope teachers who create such a poisonous mental atmosphere may be forced into a more congenial occupation ; and that those who touch the sacred head of a child save in kindness may be held as criminals before and by the law.

MRS. AURELIA GRIFFITH.

Principal Union Primary School, San Francisco.

HE who is false to the present duty breaks a thread in the loom, and will see the effect when the weaving of a lifetime is unraveled.

ABSTRACT OF THE REPORT OF THE COMMISSIONER OF EDUCATION
FOR 1880.

THE eleventh annual report of the Commissioner of Education, covering the year 1880, has been issued.

The Commissioner states that the present year has been marked by a great increase in the amount and value of the information received at the office with reference to the conduct of education in our own and in foreign countries, and by a corresponding increase in the public demand for the distribution of information. The means allowed the office for carrying on the interchange of intelligence are entirely inadequate, whether regard be had to specific inquiries or to information which should be published in the general interest of this department of public affairs.

Seven circulars of information and six bulletins have been published during the year, comprising among others the following subjects: College Libraries as Aids to Instruction; Rural School Architecture, with illustrations; English Rural Schools, with illustrations; A Report on the Teaching of Chemistry and Physics in the United States; Vacation Colonies for Sickly School-children; The Indian School at Carlisle Barracks; Industrial Education in Europe; Medical Colleges in the United States.

SUMMARY OF SCHOOL STATISTICS.

The total school population in the States for 1880 is 15,351,875; number enrolled in public schools, 9,680,403; average daily attendance, 5,744,188, four States not reporting. The school population of the Territories is 184,405, Idaho and Wyoming not reporting; enrollment in public schools, 101,118; average daily attendance, 61,154, two Territories not reporting. The percentages of enrollment and average daily attendance are highest in Massachusetts and lowest in Louisiana.

LEGAL SCHOOL AGE.

There are sixteen different school ages in the States and Territories, seventeen years being the longest period and six years the shortest. The earliest age at which children are admitted to the public schools in any State is four years. In ten States and one Territory the school age is six to twenty-one, and in seven States and three Territories five to twenty-one.

TEACHERS AND SALARIES.

The total number of teachers employed in the public schools of the States in 1880 was 280,034; the same for the Territories, 2,610. The average salaries paid to men ranged from \$25.24 a month in South Carolina to \$101.47 in Nevada, and the same for women from \$17.44 in Vermont to \$77 in Nevada.

The reports from Alabama, Florida, Kentucky, Louisiana, Maryland, Mississippi, New York, North Carolina, Tennessee, and West Virginia make no distinction of sex in the statement. The greatest difference between the salaries of males and females is in Massachusetts, where the former receive \$67.54 a month, the latter \$30.59.

INCOME AND EXPENDITURE.

The total annual school income reported by all the States and Territories is \$83,940,-239; annual expenditure, \$80,032,838; of this sum, \$8,933,174 were expended for sites, buildings, apparatus, etc., \$924,781 for pay of superintendents, and \$55,158,289 for the pay of teachers. The estimated value of sites, buildings, and all other school property is \$180,069,427, seven States and three Territories not reporting. The expenditure *per capita* of the school population varies from 96 cents in Alabama to \$14.91 in Massachusetts; the expenditure *per capita* of enrollment, from \$1.12 in North Carolina to \$17.80 in Colorado.

RURAL SCHOOLS.

In all the States public instruction is provided in (1) rural schools, which are in general ungraded ; and (2) in city schools, which are graded from primary to high, inclusive. All the States contemplate and most of them have some provision for the special training of teachers, and some prescribed mode for ascertaining their qualifications and for their appointment.

With reference to rural schools, the Commissioner observes that the difficulties in the way of any particular exhibit of their condition have been plainly stated in previous reports. Within the last two years information concerning these schools has been somewhat fuller and more explicit, and as a consequence their deficiencies and their wants are more clearly perceived. From what has been accomplished during the last two years, there is good ground for belief that the improvement of this class of schools will be steady and rapid. To realize the important relation they bear to the public welfare, we have only to remember that upwards of two-thirds of our youth must look to them for instruction. By means of rural schools, the whole tone of life in agricultural districts may be elevated, and a more uniform standard of intelligence maintained throughout the various sections of our country.

The district system as it exists in a considerable number of the States is a great hindrance to the efficiency of the rural schools. Its disastrous effects are summed up in reports from every section : small schools, short terms, meager salaries, poor teachers, incessant change, multiplicity of irresponsible officers, and instruction devoid of spirits and lacking the conditions necessary to steady progression.

The township system is universally recommended as a substitute for the district, and the time seems to have come when the legislatures of the States should meet the demand.

The efficiency of these schools would be greatly increased by proper attention to the order and continuity of studies ; on this point the experience of other countries is instructive ; in our own country graded courses of study have accomplished excellent result, wherever they have been tried, and there seems no excuse for delay in their universal adoption.

NORMAL SCHOOLS.

The number of normal schools reported is 220, having 1,466 instructors and 43,077 pupils. These institutions are classified as public normal schools and private normal schools. The number of the former is 106, of which 84 are supported by State appropriations, 1 by county appropriation, and 21 by city appropriations. The public normal schools, although numbering eight less than the private, have upwards of 8,000 more pupils and 340 more instructors. It is also noticeable that a much larger proportion of the pupils of the public normal schools are classified as normal students than of the private institutions. The number of graduates from the public normals in 1880 was 2,943 ; number who have engaged in teaching, 1,829 ; the number of graduates from the private normals was 752 ; number who have engaged in teaching, 460. The number of volumes in the libraries of normal schools was 132,408, an increase of 12,226 volumes over the same for 1879. Drawing was taught in 157 normals ; vocal music in 171 ; instrumental music in 107 ; 74 reported collections of models, casts, etc. ; 108 chemical laboratories ; 129 philosophical apparatus ; 73 museums of natural history ; 25 gymnasiums ; and 102 model schools. In 182 of the institutions diplomas or certificates are awarded students on completion of the course.

Among the largest appropriations to normal schools were \$95,000 to the Normal College, New York City ; \$33,300 to the California State Normal School, San Jose, Cal. ; \$25,800 to the Kansas State Normal School, Emporia, Kan. ; \$22,494 to the Illinois State Normal University, Normal, Ill. ; \$25,000 to the Philadelphia Normal School for Girls. The entire State and city appropriations for normal schools amounted to \$238,471 in New York ; \$77,860 in Pennsylvania ; \$60,729 in Massachusetts, exclusive of the Normal Art School ; \$57,784 in Illinois ; \$55,628 in Wisconsin ; \$40,684 in Missouri ; \$33,000 in

Minnesota; and \$24,500 in Indiana. The Normal Art School, Boston, Mass., the only institution of the kind in the country, received from the State \$16,925.

The amount of State, city, and county appropriations in 1880, to normal schools in the twelve States in which the Peabody fund was distributed, was, as nearly as can be ascertained, \$68,667.

The supervision and general care of public normal schools is intrusted in some States to the State board of education or other general officers of education, and in others to a normal school board.

The normal schools having more than a year's course include a number of thoroughly organized and efficient institutions maintained by liberal appropriations. Many of this class, however, are affected by the untoward conditions previously noted. Candidates are admitted at too early an age, and without adequate or sufficiently uniform preparation, and in the course of instruction too little provision is made for special training in the theory and art of teaching.

The disposition is everywhere manifest to examine into these institutions, to ascertain what changes and regulations are needed for the maintenance of their character as training schools, and to hold them more strictly to their requirements. It is worthy of note that every investigation of normal schools ordered during the decade has resulted in fuller appreciation of their value.

It is estimated that not more than four per cent. of the new teachers annually appointed throughout the country have had normal training. In Massachusetts, where the proportion is comparatively large, more than one-fourth of the teachers employed have attended normal schools, and above one-fifth are graduates. These considerations lead to certain obvious conclusions. Graduates of normal schools represent but a small proportion of public school teachers, and should be employed where they can most effectually direct and stimulate teachers who have had inferior opportunities for preparation. The ordinary law of supply and demand must be depended on to furnish the majority of teachers. Some system of graded normal schools must be adopted or the greater number of the schools will be left to inexperienced or altogether untrained teachers.

Normal institutes and summer normal schools offer a ready means for accomplishing this gradation. It is only necessary that they should be organized and conducted upon some rational plan, and that their support should be included as a constant item in estimates of expenses.

Teachers' or normal institutes are already authorized by law, and provisions made for defraying their expenses, in the following States: Colorado, Illinois, Indiana, Iowa, Kansas, Massachusetts, Michigan, Minnesota, Nebraska, Nevada, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, and Wisconsin. In the following States institutes are authorized, but no specific appropriations are made for them: California, Kentucky, Maryland, Oregon, South Carolina, Tennessee, Virginia, and West Virginia.

In the States in which there is no enactment on the subject, institutes are held under the auspices of State and county superintendents or other school officers. The expenses are met by voluntary contributions from teachers and officers.

Opportunities are offered for the special training of teachers in a number of colleges and universities. Chairs of pedagogics are reported by the universities of Michigan, Missouri, and Iowa. The presidents of Harvard, Yale, Columbia, and Johns Hopkins have given repeated expression to their views upon the importance of including the subject in the university curriculum, and there is reason to hope that it may ere long be introduced in the institutions which they represent.

Teachers' classes in early English and in the theory of numbers were maintained at Johns Hopkins during the year. The president and fellows of Harvard University have voted to maintain in the scientific school, for the benefit of male graduates of the State normal schools, scholarships of the annual value of \$150 each, not exceeding eight in number at any one time. These scholarships are to be divided among the normal schools

as the State board of education may from time to time determine, and the appointments are to be made in the first instance for one year, on the recommendation of the principals of the schools. Reappointments are to be made by the scientific faculty.

COMMERCIAL AND BUSINESS COLLEGES.

The number of commercial and business colleges reported is 162, an increase of 18 over the same for 1879; they had 619 instructors and 27,146 students.

KINDERGARTEN.

The tables show a steady increase year by year in the number of kindergarten. For 1880 the number reported is 232, with 524 teachers and 8,871 pupils. In a brief survey of the spread of these institutions in the United States, the Commissioner says that free kindergarten, supported by private individuals, by churches, and benevolent associations, are rapidly multiplying. It is difficult to give a summarized statement either of the number of such schools, the number of pupils instructed in them, or the influence they are exercising upon the moral well-being of society. The names of individuals who have made large contributions, either of means or of personal service to this cause, will come readily to mind. There are many kindergarten sustained by individual churches in various cities and towns, and in a few cities societies have been formed without regard to denominational lines for the express purpose of maintaining kindergarten for the children of the poorest and lowest classes; such are the society known as the United Relief Works of the Society for Ethical Culture, New York, and the Public Kindergarten Society of San Francisco, and Mrs. Cooper's Bible Class in the same city.

The efforts to introduce Froebel's system in our country have not resulted simply in the establishment of a certain number of kindergarten. Principles which Froebel emphasized, and which had been practically ignored in conventional systems of instruction, have been revived, and promise to work a transformation in elementary schools.

The opinion seems to be gaining ground in the United States that the instruction in form, color, and design, and the manual training, which are provided for in the kindergarten, afford a simple and practical foundation for industrial education.

EDUCATIONAL PROGRESS.

The Commissioner presents a comprehensive survey of educational progress as follows:

In every section of the country public interest in education has become more than usually active during the present year. City and country papers have given a place in their columns to the subject, and the discussions in periodicals have been characterized by a stricter regard to facts than heretofore.

In the Pacific Coast States the agitation has repeated the phases through which it had previously passed in the Eastern States. The points of attack have been (1) high schools, (2) the extended curriculum, (3) the literary character of the schools, and (4) their expense. Without doubt the final settlement of these questions will correspond with that farther east. High schools will be strengthened, courses of study will be modified simply as thoroughness requires, the demand for industrial training met without undue encroachment upon mental training, and the question of expense treated in a spirit of wise liberality.

In regard to California and Oregon, Commissioner Easton sums up as follows:

CALIFORNIA.

The advance in educational condition here in 1880 was evidenced in 64 additional school districts, 88 more State schools with good accommodations, 137 more with good-sized grounds, and many more with well-ventilated and well-furnished buildings;

perhaps still better evidenced by the fact that, although school youth were fewer by 426, there was a growth of 4,079 in enrollment and of 2,498 in average attendance in the public schools; while private schools lost 479 pupils. With more holders of life diplomas, more teachers, and more schools of second grade, there was, on the other hand, decrease in schools of first and third grade, as well as in new school-houses; in teachers holding educational diplomas, or first, second, and third-grade certificates; in teachers who were graduates of normal schools; in receipts and expenditures for public schools—the former of \$80,691, the latter of \$146,336. A part of this last came from a reduction of the average pay of teachers, \$1.87 a month for men and \$1.64 a month for women.

Since 1870 the reports indicate an increase of 85,862 youth of school age, of 65,257 in enrollment, and of 36,680 in average daily attendance in the public schools, though 571 fewer pupils were reported in private schools. The public schools increased by 1,253; school property by over three and one-half millions; the income and expenditure for public schools by \$1,688,521 in the former case, and \$1,151,140 in the latter. The average monthly pay of both sexes also advanced. The State school tax went up from 10 cents on \$100 in 1870 to 26 cents in 1879; the county tax, from 35 cents on \$100 of taxable property during 1870-74 to 50 cents as an allowed maximum in 1880. Kindergarten were first opened in the State in 1876; in 1880 many, both free and otherwise, were located in the different cities. Higher instruction, too, was aided by the establishment of three new colleges; normal training, by means of two new schools and three departments.

OREGON.

This State presents indications of progress since 1878-79. The graded schools increased by nine from the preceding year. Teachers were more interested in their work, were attending institutes and subscribing for educational journals, and county superintendents were giving more attention to the work of supervision. A more rigid examination of applicants for first-grade certificates was indicated by a decrease of eighteen in the number attaining such grade. Increase of youth of school age reached 3,151; in enrollment in public schools, 4,815; and in average daily attendance, 6,595; with increase, too, of 55 in districts reporting, of nearly two days in the average length of school term, of 94 in the number of teachers, of 112 in those holding second-grade certificates, and of \$46,900 in the value of school property. Fewer private schools, and a diminished attendance at such, a decrease in the pay of women teachers, and in both receipts and expenditures, are also reported.

For the decade there was an increase of 25,560 in youth of school age, of 16,533 in enrollment, of 371 in organized districts, of \$3.38 in the monthly salary of women teachers, of \$185,381 in receipts for public schools, and of \$236,933 in the expenditure for them. The average term of public schools was, however, nearly half a day less in 1879-80 than in 1870-71, and male teachers were paid \$5.81 less a month. Steps toward further progress were the founding of a State agricultural college in 1872 and of a State university in 1876, with provision in 1878 for making high schools a part of the State school system, and for making all public schools entirely free to resident youth six to twenty-one years of age, more being done in the later years for the improvement of the teaching force through institutes and normal schools.

THERE is no kind of achievement you could make in the world that is equal to perfect health. What to it are nuggets and millions? The French financier said: "Why, is there no sleep to be sold?" Sleep was not in the market at any quotation.—*Thomas Carlyle.*

EDITORIAL DEPARTMENT.

MEETING OF THE STATE ASSOCIATION OF TEACHERS.

In our October issue appeared the preliminary announcement of the meeting of the State Association of Teachers. In this number we publish the programme, as completed for the occasion. It is expected, also, that the transportation companies will make material reductions in their rates of fare, as was done last year.

The meeting this year will introduce several novel features, new at least in this State. One is the large space of time set apart for discussions; the other, and this is expected to prove quite an important and interesting feature, is the time allotted to citizens for criticisms on the public schools, and suggestions for the improvement of the system.

It is hoped that all who have opinions or ideas worth consideration will avail themselves of this opportunity to present them. In some counties delegates have been selected from the county institute to attend this State gathering; and it is believed that there will be a very general attendance from all sections of the State.

A GREAT OBSTACLE.

ONE great obstacle to a well-conducted educational system in many communities is the entire ignorance of school directors of what constitutes a well-managed and successful school.

Otherwise intelligent and conscientious men often fail to distinguish incompetent from competent teachers; effective teaching from the merest "school-keeping." A signal illustration of this was afforded us a few weeks ago.

By invitation of a director, we visited in his company the schools of a city noted for the large extent of its material resources, and the liberality of its citizens for all objects, whether of charity or religion or education. The director was a gentleman of intelligence, a successful business man, and a devoted friend of popular education. He was enthusiastic concerning the efficiency of the schools, evidently believing, to quote his own words, "that they will compare favorably with those of San Francisco or the East."

What we saw was this: Teachers asking questions from open books, and hearing verbatim answers; windows closed, until fifteen minutes in the foul air meant a headache; discipline generally very lax—so bad, indeed, that the presence of visitors appeared merely to aggravate the hubbub; inattention to teachers, so that but a small fraction of the instruction could possibly prove effective; floors untidy; and at recess pupils using school-rooms, halls, and stairways instead of the playground.

Of course all the classes were not in such bad condition; but the baldest routine teaching and the worst possible ventilation characterized seven-tenths of the whole department.

Now, who is to blame for this condition of things? The people are liberal, and pay for the very best. The directors are friendly and conscientious. The boys and girls are as bright and naturally as well-behaved as girls and boys any-

where else. Nor do we believe the teachers altogether to blame. We found a majority intelligent, industrious, willing to do right, to take the best way, if only that way were pointed out and kept well before them.

The whole fault and the whole responsibility rest with the supervision. Here is a city with no head for the schools; a spirit of the falsest economy has led the people to dispense with the superintendency. The directors, honest and perfectly intelligent in ordinary affairs of life, are completely ignorant whether a class is in order or in disorder, whether well taught or not taught at all.

So a competent superintendent is more indispensable than directors; efficient principals more needed than stately school-houses.

THE BREAK OF DAY.

AT latest advices, the educational millennium had not arrived, though signs of a day were appearing in the east. It is dawning on the minds of men that there is such a thing as a profession of teaching. In every educational journal, in the public press as well, the cry goes out for better-trained teachers. The community, too, is learning that there is a difference between "keeping school" and teaching.

Our boards of education and school trustees are beginning to employ trained teachers rather than experimenters or mere pedants. It now resolves itself into a question of finance. What a professional teacher is worth, is the problem the people must solve.

Here the school trustees—the general scapegoats for teachers on one side and the community on the other—stand far ahead of their constituents. There is no doubt but that the school boards would pay adequate salaries for adequate services, if the patrons of the schools would furnish the money.

Before the morning of our educational day can fairly dawn, our school patrons must be labored with and educated. They must con over and learn by heart the lesson comprised in a single sentence uttered by Governor Crittenden of Missouri—a lesson which deserves to be inscribed in letters of gold on the walls of every hall of legislation on earth—PARSIMONY TOWARD EDUCATION IS LIBERALITY TOWARD CRIME.

LANGUAGE TEACHING.

TH E great educational movement of the decade is unquestionably a reform in language teaching as practiced during the past one hundred years. It seems strange that sensible men and women should so long content themselves with such false and inadequate means of acquiring our language as are afforded by the study of the so-called English Grammar.

In the face of failure after failure, teachers have gone on with their daily routine of definition, parsing, and analyzing, seemingly unaware that their work is as barren of results as if they were going over some old nursery jingle.

There is no place for technical grammar in the district school; there is no place for our present misleading English grammar anywhere.

What is needed is a true grammar of the English tongue; not a complex Latin grammar, grafted on the comparatively simple and uninflected English language. Such a grammar could profitably be placed in the hands of advanced students—in our high schools, for instance. Here is the proper place for the study of the science of speech; in our elementary schools, practice alone makes perfect, and should precede theory.

OUR ADVERTISEMENTS.

A YOUNG friend—of the better sex, of course—pathetically begs the editor of the JOURNAL “not to insert so many dry advertisements.” “The JOURNAL is crowded with them,” she says.

It deeply grieves us that we cannot comply with a request prettily worded, and very complimentary to the rest of the JOURNAL. But seriously, has it never struck our readers that these advertisements comprise some of the most interesting and valuable matter published in our periodical?

In these pages are found announcements of new books, which enable the conscientious teacher to keep up with the progress of education; improved furniture, globes, and apparatus are exhibited and described here; musical instruments are noticed. In brief, everything connected with the economy of the school is properly displayed. The live teacher, we are sure, will carefully look over these pages, even though he merely glances at the rest of the JOURNAL.

THE DIXON CRUCIBLE COMPANY'S PRIZES.

LAST month we noted the awards of the money prizes offered by the Dixon Crucible Company for the best drawings by the pupils of our public schools. In our advertising pages, this issue, it will be seen that prizes amounting to \$1,000 are again offered for the same purpose by this enterprising and public-spirited company.

Drawing is not taught as generally or as systematically in California schools now as it was three or four years ago; yet it is to be hoped that this prize offer may, to some extent at least, prove a *stimulus* to our teachers, and that under their direction and help many pupils of our schools may compete for the Dixon Crucible Company's prizes.

THE NEVADA STATE INSTITUTE.

A FULL report of the recent meeting of the teachers of our sister State of Nevada is ready for this issue, but on account of its length we defer it until December. This report will include an account of a ramble through the schools of Gold Hill and Virginia City, by the editor of the JOURNAL.

SCIENCE RECORD.

THIS RECORD is under the editorial charge of Prof. J. B. MCCHESNEY, to whom all communications in reference thereto must be addressed.

MACALLINE, an alkaloid obtained from the bark of the macallo, a tree which grows in Yucatan, is recommended by Dr. Rosado as superior to quinine in the treatment of intermittent fevers.

IT IS SAID that a lime " whitewash," made yellow with copperas, covering stones and rafters—the crystals of the copperas thrust into rat holes—will rout not only rats, but cockroaches and mice.

VACCINE virus not fresh from the cow, but " humanized " by many removes, affords no protection, and may contribute and may communicate dangerous maladies.

DR. GEHRING of Bavaria is said to have composed an enameling fluid which will make any kind of stone or cement harder than granite, and will also prevent iron or steel from rusting.

THE ASTHMATIC will rejoice to learn that an ounce of the *Euphorbia pilutifera* (indigenous to Queensland, Australia) placed in two quarts of water, and allowed to simmer until reduced to one quart, will, taken a wineglassful at a time, relieve the most obstinate asthma.

THE LONGEST span of wire in the world is used for a telegraph in India over the River Kistnah, between Bezorah and Sectanagrum. It is more than 6,000 feet long, and is stretched between two hills, each of which is 1,200 feet high.

A VETERAN watch-maker at Vouvry, Switzerland, claims to have invented a process by which watches will run for years without winding up. A sealed box containing two watches, intrusted to the municipal authorities on January 19th, 1879, has just been opened, and the watches were found going.

AFTER his experience with them during his " Voyage of the Beagle," Darwin pronounced the Patagonians to be a race degraded below the possibility of improvement. But thirty years later, on learning of the changes wrought by English missionaries there, he frankly admitted his mistake, and became a contributor to the funds of the South American Missionary Society.

THE London *Building News* says: "The comparatively recent discovery that luminous paint can be applied as ordinary whitewash considerably expands the field of its usefulness. Sheets of glass coated with the paint form Alladin's lamps, which are in use in some of the vessels of the navy, at the Waltham Powder Factory, at Young's Paraffine Works, and in the spirit vaults of several docks; but now that, by increased production and the use of water as the medium, the cost is reduced one-half, it will probably be extensively used for painting walls and ceilings. The ordinary form of oil paint has already been applied in many ways to clock-faces, to name-plates and numbers and house-doors, and to notice-boards; such as ' mind the step,' ' to let,' etc. The paint emits light without combustion, and therefore does not vitiate the atmosphere. Several experimental carriages are now running on different railways, the paint being used instead of lamps, which are necessary all day on account of the line passing through occasional tunnels. It is reported that a paper at Turin called *Light* is to appear shortly, printed in ink which will be luminous when darkness sets in. Who can say, indeed, that a policeman, when smeared in this luminous composition, will not be sometimes visible on his beat at night? "

NEWS RECORD.

Foreign and Domestic.

The record for last month was crowded out; so this month's intelligence includes leading events from Sept. 1st to Nov 1st, inclusive.

The public debt decreased during August \$16,128,261. The interest-bearing obligations are \$1,437,603,750. The total debt is \$1,890,281,403, which the cash in the treasury would reduce to \$1,658,926,171.

Yellow fever has prevailed to an alarming extent at Brownsville and Matamoras, Texas, and the Governor of the State has appealed to all the other cities of the State for aid for the sufferers. The dread disease is at Pensacola, Florida, and has appeared at New Orleans, Mobile, and other cities of the Gulf coast.

Great rain-storms have caused extensive inundations in both Eastern and some Western States. There has been great damage to property in New Jersey, and also along the Rio Grande in Texas.

All the heavy work on the interoceanic canal is to be stopped.

The drouth continues to be severely felt in several of the Central American republics.

The Governments of Nicaragua, Honduras, and Salvador have ordered corn from the United States.

The West Point military department has been discontinued by order of President Arthur.

Natives attacked the French force near Kairwan, Tunis, on Sept. 10th. A sharp skirmish followed, the natives being finally repulsed. The Arabs lost one hundred and fifty killed, and the French fifty.

The civil troubles in Corea culminated in a general insurrection, in which the palace was attacked. The king was not killed, but all the other members of the royal household were put to death, and thirteen ministers and other high dignitaries slain.

On Oct. 1st, Cetewayo, the Zulu Chief, who has been making an extended visit in England, and has been made much of by royalty and courtiers, sailed from Southampton for Cape Horn.

On Sept. 11th there was a storm on the Gulf of Mexico, which did much damage in the States of Florida, Louisiana and Texas. Houses were blown away, a number of persons and many animals killed. Also, in addition to marine disasters in the gulf, serious injury was done the rice crops on the Mississippi River below New Orleans.

The Archbishop of Canterbury is very ill.

Recently Judge Wylie accepted a partial verdict in the Star-route cases. The jury acquitted Turner, convicted Rerdell and Miner, and disagreed as to the principal villains.

On Sept. 10th, the British forces at Kassassin Lock repulsed a sharp attack of the Egyptian cavalry, inflicting severe loss.

On the evening of the 12th, the British left Kassassin, and moved in the direction of Tell-el-Kebir. Here the Egyptian army were found strongly intrenched, and Gen. Wolseley saw that he could not carry it by assault in the daylight without exposing his troops to a damaging fire. He therefore waited till 4:45 A. M. of the 13th, and threw his entire force of 11,000 infantry and 2,000 cavalry against the works. The troops were met by a sharp fire, but in fifteen minutes after the first charge they were masters of the works, and the Egyptians were in full flight. The black troops of the Soudan, it is said, behaved well, but the native Egyptians broke and ran at the first onset.

The English did not permit the enemy to recover himself, but pushed forward and captured Zagazig the same afternoon. The next day they pushed on to Cairo, where they were received with professions of friendship by all classes. Arabi Pasha surrendered unconditionally. When carried before the Khedive, he is said to have been servile in the extreme. Since the scattered army has now no leader, the war may be considered over.

The destruction of property on the Isthmus of Panama by an earthquake, last month, was very large. The loss in the city of Panama will reach several hundred thousand dollars, and several lives were lost at Aspinwall. Another earthquake occurred shortly after, and the people of the city are so terror-stricken that they pass their nights in the public square, not daring to sleep in buildings.

Dr. Pusey, the chief theologian of the Catholic school in the Church of England, already by his length of years a historical personage, is dead.

The difficulty between Corea and Japan has been adjusted, Corea to pay Japan £500,000 and £50,000 to the relatives of the murdered Japanese subjects. The Chinese have intervened, reinstating the king of Corea by the aid of Chinese troops and ships of war.

There were 170 deaths from cholera at Manilla, Philippine Islands, in one day recently, and 279 deaths from the same disease occurred in the adjoining village. The cholera is also raging in Cochin China.

Melville and Noros, of the Arctic steamer Jeannette, had a public reception at the City Hall in New York, and thousands of people took occasion to pay their respects to them.

The famous Mississippi River steamer R. E. Lee was burned thirty miles south of Vicksburg early on the 30th of Sept., causing the loss of twenty lives and the total destruction of boat and freight.

Unhappy Peru appears to be as unsettled as she was a year ago. The Chileans hold the seaports and the capital and take in the revenues; while in the interior, Montero has formed a new ministry,

and an army is still on foot. Negotiations are pending by which Bolivia may be induced to fight Chili again, and dictator Pierola is coming back to the country from Paris. President Calderon, who during the last eleven months has been a prisoner in Chili, has returned to Peru. But at the same time comes the news from the city of Buenos Ayres that the peace negotiations there pending between Chili and Peru have been broken off because of the refusal of Chili to abate any of her demands.

Telegraphic connection between Callao, Peru, and the United and England, was established October 24th.

COUNTY INSTITUTES.

NAPA COUNTY.

The Napa County Teachers' Institute assembled October 11th, at the Opera House in Napa City, and was called to order by Supt. Walker. Miss M. F. Gregory was elected secretary, and S. M. Shortage and T. H. McDonald vice-presidents. After the opening chorus, "Welcome Here," Prof. Lyser addressed the institute on Primary Arithmetic as taught by the Grube Method, which was illustrated by several teachers. Prof. Lyser also took up the subject of Natural Philosophy, and assigned five topics to the teachers for discussion next day. He also spoke of the "importance of Mental Philosophy to teachers." Mr. Cosgrove followed with an interesting address on Elementary Reading and Spelling. At its close, Profs. Bray and Lyser discussed the Phonetic System.

On assembling the second day, J. L. Shearer read a carefully prepared paper on Methods of Teaching. "Teach the pupils," said he, "self-direction and self-control as the most important lessons in life." He further said, "Mechanical aids do not hurry educational work." The teachers to whom Prof. Lyser referred subjects in Natural Philosophy came forward and illustrated them. An exercise of rapid work in Mental Arithmetic was given by Prof. Lyser. Mr. Cosgrove illustrated the teaching of fractions by means of Byrne's Fractional Apples. Prof. Lyser illustrated teaching Geography to primary and advanced classes. T. H. McDonald read an article on Text-books. The "credit system" in recitations was announced for discussion. A. B. Coffman believed it to be a direct incentive to cheating and falsehood. He would appeal to the higher motives. J. L. Shearer thought to do so was vain. He believed emulation should be in vogue everywhere. Several others took part in this discussion. An exercise in History by Prof. Lyser closed this day's work.

Wednesday evening Prof. Lyser spoke on Fiction, its Uses and Abuses. He called attention to the fact that the most rapid reader cannot keep pace with the number of volumes coming from the press yearly, and advised novel-readers to read Sir Walter Scott, Charles Kingsley, George Ebers, George Eliot, Anthony Trollope, Nathaniel Hawthorne, Bulwer Lytton, Charles Dickens, and Thackeray. Thursday evening Hon. Fred. M. Campbell delivered his address—Education, its Debatable and Undebatable Ground—and Miss Dows favored the institute with two fine recitations.

YUBA AND SUTTER COUNTIES.

The Teachers' Institute for Yuba and Sutter Counties convened at 9:30 A. M. October 26th, in the Marysville court-house. The attendance was very full; at second roll-call, out of a total of 8~~s~~ teachers, 79 answered to their names. A large number of citizens

attended. Supt. Steel presided, and Supt. Clark of Sutter occupied a seat beside him. Prof. Allen spoke on the Qualification of Teachers; also on Elementary Sounds. He urged the necessity of teaching distinct enunciation. This was supplemented by Prof. Hill on Pitch and Tone. In the evening Prof. Allen lectured on The Higher Education in Public Schools. He favors high schools, linking the grammar schools and university. Only three-tenths per cent. of the public school children ever attend the university, and but five per cent. any high school. "A broader education than is supplied by the common schools is needed. The 'three R's' are not sufficient. It will pay the State to give this higher education. Better men and women and better citizens will be the result of it. This stepping-stone from the common schools to the university is demanded by the higher interests of the State."

The second morning was occupied by Mr. McPhee and Prof. Allen in dissertations on Arithmetic. In the afternoon Messrs. Raub and Babcock spoke on Grammar, and Prof. Allen on Voice Culture. In the evening Hon. Fred. M. Campbell spoke on Education, its Debatable and Undebatable Ground.

Friday's session was opened by Prof. Allen on Decimals, and S. D. Waterman on Compound Proportion. Prof. Allen discussed Geography, and Mrs. E. A. Davis gave her ideas on Map-drawing. Prof. Allen spoke on Diacritical Marks, also on Arithmetic. "Directing the minds of pupils in relation to literature" was discussed. Resolutions of thanks were voted Hon. F. M. Campbell, Prof. Allen, Superintendents Steel and Clark, when the institute adjourned *sine die*.

COLUSA COUNTY.

The Teachers' Institute convened in the public school building, Colusa, 11 A. M. Monday, October 30th, Supt. Houchins presided, and C. J. Walker was elected secretary. At the second roll-call sixty teachers answered to their names. School Government, presented by Prof. J. H. Reardon, called forth an interrogatory discussion, in which several teachers took part. Primary Reading and Class Work in Advanced Reading was presented by J. L. Wilson. Prof. Crane presented Arithmetic, the subject of Percentage being discussed at some length. Word Analysis, presented by C. J. Walker, was continued by Prof. Norton and President Keith, and considered with reference to the spelling reform. In the evening Prof. Norton delivered his lecture, The Story of a Dead World.

On the third day J. E. Hayman presented the subject of Grammar, conducting it as a class exercise. Institute Work was presented by Prof. Norton, who made many valuable suggestions with regard to teaching. Music as related to school work was presented by Prof. Kennedy, and Drawing by Miss Vivian.

EDUCATIONAL INTELLIGENCE.

ALAMEDA COUNTY.—A seminary for the education of Catholic priests is about completed at the old Mission San Jose in this county. It is a handsome and commodious brick structure, three stories high. The dedication exercises will take place in a few weeks.

Rev. J. H. C. Bonte has prepared and submitted to the Board of Regents of the State University his first annual report.

The cash receipts are \$276,968.59; disbursements, \$302,784.80; balance in treasury June 30th, 1882, \$26,423.68. The income of the University available for current expenses exceeded the original estimate, which was \$96,677. At the beginning of the year salaries and other expenses were reduced nearly \$7,000. During the year 3,724 volumes were added to the library. The Bacon and Pioche art collec-

tions are in place on the walls. The past year the metallurgical laboratories have been set in order. A number of interesting curiosities have been added to the museum; such as Indian relics, zoölogical specimens, and minerals from different parts of the United States.

SANTA CLARA COUNTY.—At a recent meeting of the trustees of the State normal schools, \$12,500 were appropriated for the support of the branch normal school at Los Angeles.

LOS ANGELES COUNTY.—The cabinet of the Los Angeles High School Natural Science Club contains 350 botanical specimens, partly from the Eastern States and Europe. The ornithological department contains 31 specimens of birds from South-

ern California, one case of insects containing 20 specimens, also one containing 50 specimens from Germany. The entomological department has a number of specimens—300 geological specimens and 100 miscellaneous—making a total of 971 specimens, the fruit of one and a half year's collection.

MARIPOSA COUNTY.—At a recent meeting of the Mariposa Board of Education, a resolution was adopted which provides that pupils of the grammar schools who have obtained seventy per cent. in arithmetic, grammar, geography, reading, orthography, etymology, history, penmanship, and elements of physiology, at a regular examination of teachers, shall be granted diplomas of graduation.

BOOK NOTICES.

THE BODLEY GRANDCHILDREN, AND THEIR JOURNEY IN HOLLAND. By Horace E. Scudder. Boston: Houghton, Mifflin & Co. San Francisco: A. L. Bancroft & Co. Price, \$1.50.

The thousands of young and old readers who have lingered with endless delight over the *Bodley books* will hail joyfully this addition to the number.

At the close of "Mr. Bodley Abroad," it was said that the children—i. e., the Bodley children—might themselves go to Europe when they had grown up.

We find now that thirty years after the days when they were Bodley children they had children of their own, and thus a new series of adventures have begun. Nathan and Phippy Bodley, having married a sister and brother, are heads of families themselves, and a new career opens in this book, the first volume of the second series. In this volume the two families, with their grandchildren, start from New York, after first making themselves acquainted with the doings of their Dutch ancestors there in the days of New Amsterdam, and spend several weeks in Holland, seeing sights, taking an object lesson in history, and especially making the connection between American history and Dutch history. They are

Americans visiting Europe not merely for the pleasure of travel, but for the purpose of tracing back the footprints of their ancestors.

It is such books as these as make alive the facts of geography and history. In fact, as regards the teaching of geography, a book of this kind gives a more adequate and real idea of a country than all the geographies ever written.

The book will be found an invaluable addition to every school library.

ORTHOPHONY; OR, VOCAL CULTURE. By Wm. Russell. Re-edited by Francis T. Russell, M. A. Boston: Houghton, Mifflin & Co. San Francisco: A. L. Bancroft & Co. Price, \$1.25.

We remember Dr. Russell's *Vocal Culture* twenty-five years ago as the standard text-book on the subject, and during all these years no subsequent publication has ever equaled it in popular favor. Based on Dr. Benjamin Rush's "Philosophy of the Human Voice," it is absolutely the best work published for that culture of the voice so indispensable to well-modulated speech, either in speaking or reading.

The publishers, as usual, have done their part well; the book typographically and mechanically cannot be excelled.

THE READER'S GUIDE TO ENGLISH HISTORY. By Wm. Francis Allen, A. M. Boston : Ginn, Heath & Co.

This will be found an exceedingly useful little book to the student of English history who desires to do some reading outside the regular text-book.

The work is arranged in four parallel columns: the first column containing the English sovereigns in the several houses, in the form of genealogical tables; the second, good historical reading, whether histories, biographies, or essays; the third, novels, poems, and dramas illustrating that period of English history, so far as possible, arranged chronologically; the fourth, the same class of works illustrating contemporary history.

DOLAN'S DRILL TABLES IN ADDITION, SUBTRACTION, MULTIPLICATION, AND DIVISION. Adapted to Graded and Ungraded Schools. By J. C. Dolan, Pittsburgh, Penn.

This is a little book of thirty-six pages, which we believe teachers would find very useful in the daily, almost hourly, work of the school-room.

The following quotations from the author's introduction will show the design and uses of the work: "The special province of these tables is simply to aid in teaching the four fundamental rules in written arithmetic. They are not intended to take the place of anything that has hitherto been published on the subject; neither are they intended to release the teacher from his personal and individual responsibility in teaching this the most difficult part of arithmetic.

" Of course full directions are given how to use the tables, and all combinations, etc., are fully explained."

The price of the book was not sent us; however, it must be about 40 cents.

BEOWULF. I. Text. Edited from M. Heyne. Edited by James Albert Harrison. Boston : Ginn, Heath & Co.

The students of English literature are under obligations to the above enterprising publishing firm for this carefully prepared edition of the oldest poem in the English language.

Of course, it is only to the student in old English that this book possesses interest. But there is not now a first-class college or

university in the country whose students in English may not obtain a tolerable knowledge of the language and literature of England during the seventh, eighth, ninth, and tenth centuries. This edition comes opportunely for such students.

A glossary, we are told, is speedily to follow this text.

THE AGE OF FABLE; OR, BEAUTIES OF MYTHOLOGY. By Thomas Bulfinch. A new enlarged and illustrated edition. Edited by Rev. E. E. Hale. Boston : Lee & Shepard. San Francisco : C. Beach. Price, \$2.10.

This is a beautiful edition of a famous book. What reader and student has not heard of Bulfinch's Age of Fable? As told by Bulfinch, those dreamy, charming tales of the old Greek and Roman world take on added beauties and stronger fascination. What Dr. Hale has added increases ten-fold the value of the book. The old Northland mythology, to us even more delightful and more thought-inspiring than the southern fable, has been added; and ample descriptions and interpretations as well, of the Egyptian, Hindoo, Persian, and Chinese mythological lore. Chapters on the "Origin of Mythology," "The Poets of Mythology," and "Modern Monsters," are especially valuable to the student and teacher.

This is a book much more appropriate for every school library than a majority of the works now commonly placed on its shelves.

ASTRONOMY FOR SCHOOLS AND GENERAL READERS. By Isaac Sharpless, Professor of Mathematics and Astronomy. Haverford College, and Prof. G. M. Phillips, State Normal School, West Chester, Pa. Philadelphia : J. B. Lippincott & Co. San Francisco : J. A. Hoffman. Price, \$1.25.

If we were selecting a text-book on astronomy for high schools and academies, we should, comparing this book with the score of similar works with which we are familiar, unhesitatingly select this. It recommends itself at sight to the interest and approval of the practical teacher. Perfectly simple and clear, the book (a work of 300 pages) is not burdened with details, or filled with difficult mathematical demonstrations. The illustrations are numerous, and have been carefully chosen. Different theo-

ries are given in the book, but the line between theory and established fact is clearly drawn. The best idea in the book is the plan of setting the student to work—directing him how to make observations either with the naked eye or with small telescopes.

Teachers will find the book very valuable for reading and self-improvement.

THE PREPARATORY GREEK COURSE IN ENGLISH. By William Cleaver Wilkinson. New York : Phillips & Hunt. For sale by all booksellers.

The aim of this volume, stated in the words of the author, "is to enable persons prevented from accomplishing a course of school and college training in Latin and Greek to enjoy an advantage as nearly as possible equivalent, through a medium of their native tongue."

It is hardly needful for us to say that the book is an outgrowth of the Chautauqua Circle, and a portion of the Chautauqua course of study.

We believe books of this kind destined to do great good in introducing the masses to a close acquaintance with the ancient peoples and their literature.

The work, in presenting Æsop, Hesiod, Xenophon, and Homer in an English garb, bringing to aid Dryden, Pope, and Bryant, as well as prose translations, has been exceedingly well done. Indeed, we are confident that the earnest reader may come away from the study of this book with a more accurate, broader knowledge of Greek life and literature than if he had spent four years in the usual way in college.

OVID, SELECTIONS FROM THE METAMORPHOSIS. With Explanatory Notes and a Vocabulary. By George Stuart, A. M., Professor of Latin, Central High School. Philadelphia : Eldredge & Bro. Price, \$1.35. To teachers for examination, \$1.

Prof. Stuart's Latin books, both his grammar and editions of Latin authors, are meeting with much favor. An examination of the book before us explains this.

The selections from the metamorphoses have been judiciously made ; there need be no skipping, a class may take all the work. The notes, chiefly grammatical, are copious. An extensive vocabulary completes the work. The book typographically is very attractive ; in fact, the mechanical execution is as creditable to the publishers as is the literary part to the editor.

A SPANISH GRAMMAR. By Prof. W. I. Knapp, of Yale College. Boston : Ginn, Heath & Co. Mailing price, \$1.65.

Innumerable Spanish grammars, methods, conversation books, etc., have been published. Some have merit, others have not ; but nearly all base their work on the language as *spoken*, consequently they do not give the attention to the *formal* part of the language so necessary to the literary student. It is principally to this class of students that the work appeals. Nothing can adequately be substituted for the thorough acquisition of the forms and inflections of a language. These are best comprehended and remembered by the tabular arrangement in this book, which at the same time furnishes a base of supplies for review or reference. While entering into the spirit of the literary life of the Spaniard of to-day, the learner, by a carefully graded series of exercises, is insensibly conducted along to a familiarity with the spoken language. The book also contains a Spanish-English and English-Spanish vocabulary, which will be found useful.

A MANUAL OF ELOCUTION AND READING, embracing the Principles and Practices of Elocution. By Edward Brooks, Ph. D., Principal of the State Normal School, Millersville, Pa. Philadelphia : Eldredge & Bro. Price, \$1.50.

This book is divided into two parts. Theoretical and Practical. The Theoretical is based upon that standard, Rush's Philosophy of the Human Voice, the authority on the subject for more than sixty years. The Practical contains copious extracts from nearly all the departments of our best literature. The humorous and the grave, the narrative and the deliberative, the rich and picturesque and the terse and vigorous, the emotional and the phlegmatic—all find expression in poetry and prose. Indeed, the great variety and extent of the selections are such that many teachers will welcome them as more than an equivalent for the usual reading book.

Dr. Brooks has done his work well here, as in his Philosophy of Arithmetic, and all his other works. We are sure his book will take rank with the best of its class, and become a favorite.

The mechanical execution of the book leaves nothing to be desired. It is strong

and durable enough to stand the daily use of the class-room, and still very handsome.

SHAKESPEARE'S TWO GENTLEMEN OF VEROINA. Edited by W. J. Rolfe, A. M. New York : Harper Bros. For sale by all booksellers.

The Two Gentlemen of Verona is another valuable addition to Mr. Rolfe's admirable series of Shakespeare's plays. It is needless to say anything in praise of this work, as the student of Shakespeare will find it, after a short perusal, an invaluable help and a desirable addition to his library. Published by Harper Bros.; for sale at A. L. Bancroft & Co., San Francisco.

THE FIRST AND SECOND GERMAN BOOK—

THE ECHO. Based on the Natural Method. By Dr. J. H. Worman. New York : A. S. Barnes & Co. San Francisco : E. F. Adams, corner Sacramento and Sansome streets.

The "Natural Method" of teaching languages, the method on which this series is based, is so much in accord with the mental growth of the child, so logical and superior, that it is only a question of time when it will supplant all other known methods.

Prof. Worman's series for the study of the German language are excellent books. His Grammars, both the Elementary and Complete, show in their arrangement the great care the author bestowed upon his difficult task of adding a new text-book on Grammar to the large number already existing. His Readers contain selections from the best German authors, and are accompanied by numerous annotations and explanations, and a rich vocabulary. The "Echo" will be found a great help in acquiring a facility and fluency in conversation. The First and Second German Book, Natural Method, are invaluable for classes of beginners.

We have just received from Houghton, Mifflin & Co., Boston, a beautiful Calendar for 1883, named the *Longfellow Calendar*. Like everything else put forth by this house, it is a work of rare excellence of design and exquisite beauty of finish; surpasses everything of the kind ever before published.

It has a portrait which is pronounced excellent by those who knew Mr. Longfellow most intimately. On one side of the medallion containing it is a view of Mr.

Longfellow's Cambridge home, and on the other the Belfry of Bruges. Below, on the right, is a picture of Evangeline standing on her father's vine-clad porch; on the left a picture of Priscilla in the snow carrying food to the poor.

A band of golden daisies, with panels bearing the names of Mr. Longfellow's most famous works, incloses the whole.

The selections from Mr. Longfellow's writings for each day of the year are carefully chosen, and form a series of passages of great beauty and excellence.

The Calendar is printed in twenty colors, so blended and distributed as to produce a very rich and tasteful effect.

The multitude of Mr. Longfellow's readers will value this Calendar as a daily reminder of one whom they prize so highly, and of whom this is so beautiful a souvenir. The price is one dollar, and at least one copy should decorate the walls of every school-room on our coast.

BOOKS RECEIVED

How to Write, by W. B. Powell, A. M. Cowperthwait & Co. For sale by all booksellers. \$1.00.

Captain Mausana, etc. (tales), by Bjornstjerne Bjornson. Houghton, Mifflin & Co. For sale by A. L. Bancroft. \$1.00.

A Practical German Grammar, by Wesley C. Sawyer, Ph. D. T. C. Griggs & Co. For sale by A. L. Bancroft. \$1.00.

A Practical Arithmetic, by G. A. Wentworth, A. M., and Rev. Thomas Hill, LL. D. Ginn, Heath & Co. For sale by all booksellers.

Common School Elocution, by I. H. Brown. For sale by all booksellers.

Monroe Advanced First Reader, Monroe Advanced New Primer, and Monroe Advanced Second Reader, by Mrs. Lewis B. Monroe. Cowperthwait & Co. For sale by all booksellers.

Monroe's Reading Charts, by Mrs. Lewis B. Monroe. Cowperthwait & Co. For sale by all booksellers.

Parker's Arithmetical Charts, by F. W. Parker. Cowperthwait & Co. For sale by all booksellers. \$6.00.

Common Sense ; or, First Steps in Political Economy, by M. R. Levenson. Authors' Publishing Company. For sale at \$38 Market street. \$1.00.

A Word to the Wise, by Parry Gwynne.
E. P. Dutton & Co. For sale by all booksellers. 25 cents.

Notes to Preparatory Book of German Prose, by H. B. Boisen. Ginn, Heath, & Co. For sale by all booksellers.

French Syntax, by James A. Harrison. J. E. Potter & Co. For sale by all booksellers.

Natural Philosophy, by Thomas R. Baker, Ph. D. Porter & Coates. For sale by all booksellers.

A New School Physiology, by R. T. Dunglison, M. D. Porter & Coates. For sale by all booksellers.

Empirical and Rational Psychology, by A. Schuyler, LL. D. Van Antwerp, Bragg & Co. For sale by all booksellers.

LITERARY NOTES.

St. Nicholas for November begins the new volume in splendid style with a colored frontispiece, by R. B. Birch, entitled Indian Summer. Another prominent feature is the first installment of J. T. Trowbridge's new serial, *The Tinkham Brothers' Tide-Mill*. There is the beginning of another serial by another favorite, Frank R. Stockton. The November is also the Thanksgiving number, and so Miss Sophia Swett has contributed a jolly story called All the Plums. Old Mordecai's Cockerel is another amusing Thanksgiving tale, and there is a daintily illustrated Grace for a Child from Herrick. Miss Eva L. Ogden has written, and Mr. Alfred Brennan has illustrated, a quaint and beautiful poem covering eight pages, entitled *The Quest*, founded on Little Bo-peep's sheep's search for their long-lost tails. The False Sir Santa Claus, a beautiful and novel form of Christmas entertainment, by the author of *The Land of Nod*, is printed in this number, with music and complete stage directions, in ample time for it to be effectively produced in holiday season.

As the first number of the new volume, the November *Century* gives promise of even increased excellence for the magazine during its second year under the new name. Pictorially, the November number shows that the *Century* is as ambitious as ever for the reputation of American wood-engraving, as witness the frontispiece portrait of Florence Nightingale and the full-page portrait of Henry James, Jr., both by Cole; Elbridge Kingsley's beautiful full-page engraving, direct from nature, of a view in New England woods (accompanying which is a description by the engraver of his manner of working); the full-page reproduction, by Kruell, of an ideal bronze head, which is one of the costly art-treasures of the British Museum; Mary Hallock Foote's refined and charming illustrations, engraved by Miss Powell and by Cole. The

November *Century* presents a paper on Venice (profusely illustrated), by Henry James, Jr.; a paper on Henry James, Jr., himself, by W. D. Howells; a remarkably able and entertaining article on Victor Hugo (written expressly for the *Century*), by the celebrated French novelist, Alphonse Daudet; a forcible essay by Charles Dudley Warner, on the sources of the material and intellectual prominence of England, and the literary indebtedness of the United States to the mother country, as also the growing literary independence of the United States; and a strong argument in the negative to the ripe question, Is the Jury System a failure? by Albert Stickney. Other prominent features of the number are Edward Eggleston's description of The Beginning of a Nation; the Rev. Dr. Washington Gladden's opening chapters in his story—with a purpose looking to Christian co-operation—entitled The Christian League of Connecticut; a finely illustrated paper on A New Profession for Women, in which Franklin H. North describes the Bellevue Training School for Nurses; and Mrs. Lucy M. Mitchell's illustrated paper on The Sculptures of the Great Pergamon Altar. The fiction of the number comprises the first chapters of Mary Hallock Foote's novel, *The Led Horse Claim*; a humorous short story by Frank R. Stockton, entitled *The Lady and the Tiger*; and the continuation of Mrs. Burnett's Through one Administration. The poems of the number are by Thomas Wentworth Higginson, H. H., James T. McKay, George Edgar Montgomery, Edward N. Pomeroy, and Richard Watson Gilder.

Harper's Magazine for November, concluding the sixty-fifth volume of that periodical, is a brilliant number. Naturally, as a consequence of the immense popularity of Miss Constance Fenimore Woolson's Anne, the most prominent feature of this number is the commencement of a new novel by the same author, entitled *For the Major*. The leading article of the number, *The Early Quakers in England and Pennsylvania*, is timely in connection with the approaching celebration of the two hundredth anniversary of William Penn's landing at New Castle. Wm. D. Howells contributes a poem of considerable length. Mr. Wm. Hamilton Gibson's charming paper, *Across Lots*, is accompanied by thirteen exquisite engravings from the author's drawings. Mr. Gibson also contributes the frontispiece illustration for this number, entitled *Reverie*, and engraved by Mr. King. William Henry Bishop contributes a second paper on Southern California, devoted to a truthful and interesting description of the San Joaquin Valley, and beautifully illustrated. All who have read *Lorna Doone*, the greatest romance of this generation, will read with eager interest Miss Kate Hillard's article, *The Home of the Doones*, describing the places on the North Devon coast associated with the legends of the Doones and Tom Faggus. The article is effectively illustrated. Prof. John Fiske contributes a truthful and exceedingly interesting picture of Virginia society in the Colonial period. Poems are contributed by Will Carleton, James Burke, Harrison Robertson, Juliet C. Marsh, and Horatio Nelson Powers.

The November *Atlantic* contains: Two on a Tower, by Thomas Hardy; How shall the American Savage be Civilized? by George S. Wilson; Midnight, by Charles L. Hildreth; A Ride in Spain, by Charles Dudley Warner; Studies in the South (IX.); Under the Sky, by Edith M. Thomas; Tapestries, by William Young; Beaumarchais, by Maria Ellery McKaye; The House of a Merchant Prince, by William Henry Bishop; Domestic Country Life in Greece, by Eunice W. Felton.

The November *Lippincott's Magazine* contains:

The Cruise of the Viking, by H. W. Raymond, illustrated; Fairy Gold (a story), illustrated; Before Dawn, by Anna Boynton; Don Pedro's Dominion, by Frank D. Y. Carpenter; Not as the Romans do (a story), by Emily F. Wheeler; A Day with Emerson, by Horatio Nelson Powers; Quarterly Meeting in the West, by Louise Coffin Jones; Some authenticated Ghost Stories, by Robert Wilson; Forest Worship, by Frances L. Mace; Mark Bushman's Romance, by Alice Ilgenfritz; A Glimpse of the Seat of War, by Charles Wood.

THE PUPILS' CORNER.

THIS department, which will consist of new, and in many cases original, declamations, poems, dialogues, music, and games, suitable for Friday afternoon exercises, will be under the editorial charge of MRS. ALICE LYSER. Teachers who have matter for the department, or suggestions in regard to it, are solicited to send communications to her address at this office.

THINGS PUPILS SHOULD KNOW.

POETICAL ANATOMY.

HOW many bones in the human face?
Fourteen, when they're all in place.

How many bones in the human head?
Eight, my child, as I've often said.

How many bones in the human ear?
Three in each, and they help to hear.

How many bones in the human spine?
Twenty-six, like a climbing vine.

How many bones in the human chest?
Twenty-four ribs, and two of the rest.

How many bones the shoulders bind?
Two in each—one before, one behind.

How many bones in the human arm?
In each arm two; two in each fore-arm.

How many bones in the human wrist?
Eight in each, if none are missed.

How many bones in the palm of the hand?
Five in each, with many a band.

How many bones in the fingers ten?
Twenty-eight, and by joints they bend.

How many bones in the human hip?
One in each; like a dish they dip.

How many bones in the human thigh?
One in each, and deep they lie.

How many bones in the human knees?
One in each; the knee-pan, please.

How many bones in the leg from the knee?
Two in each, we can plainly see.

How many bones in the ankle strong?
Seven in each, but none are long.

How many bones in the ball of the foot?
Five in each, as in the palms were put.

How many bones in the toes half a score?
Twenty-eight, and there are no more.

And now, all together, these many bones fix,
And they count, in the body, two hundred
and six.

And then we have, in the human mouth,
Of upper and under, thirty-two teeth.

And now and then have a bone, I should
think,
That forms on a joint, or to fill up a chink.

A Sesamoid bone, or a Wormian, we call,
And now we may rest, for we've told
them all.

HOLD UP THE RIGHT HAND!

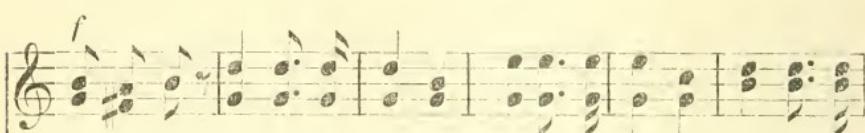
Firmly, and with spirit.

T. CRAMPTON.



1. Hold up the right hand! hold up the
2. Point to the east-ward! point to the
3. Let all be seat-ed! cross arms to

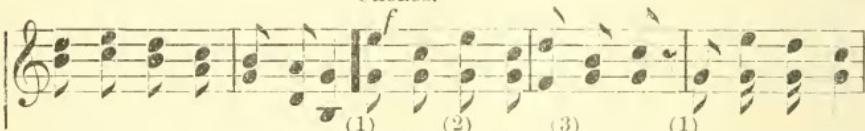
left hand! Now hold up both! then
west-ward! Now to the south where
el-bows! Straight keep the feet the



(1) clap! clap! clap! Now let the (2) black-smith strike on the an-vil! Now let the sun shines bright! Raise fin-gers up-ward! now point them down-ward! Stretch out the head up-right! Now see the sai-lor(4) pull at the rope, boys! Now watch the



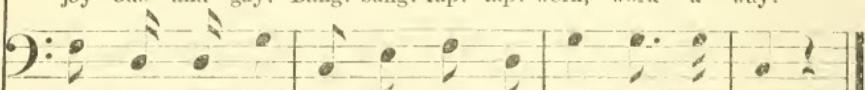
CHORUS.



(1) (2) (3) (1)
cobler give his rap, tap, tap! Clap! clap! bang! bang! rap, tap, tap! Clap, clap, at play!
left arm! now stretch out the right!
wood-man(5) wield his axe so bright!



joy-ous and gay! Bang! bang! rap! tap! work, work a-way!



The words generally will indicate the suitable action. (1) Clap hands smartly.
(2) Strike right arm and elbow downwards, with fist clenched. (3) Tap with right hand from the elbow. (4) Pull hand over hand, as on a rope. (5) Strike with both hands from the right shoulder obliquely, as if cutting down a tree.

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PHYSICAL AND MORAL HEALTH OF TEACHERS.

IN these days the world expects a great deal of its school-teachers. The educational requirements have expanded from a knowledge of reading, writing, and casting accounts to a broad and liberal education in mathematics, the natural sciences, literature, and philosophy. With all this we are urged on to still greater scholastic attainments; the voices of the people and the press call for yet greater mental development of teachers. This is well; too much cannot be said on the subject, but for once let us play the tune in a different key.

Our common-school system is a grand scheme, and to us who are working out the great plan, in humble places or in high ones, the nations of the earth are looking for results. If we fail, individually or collectively, we strike the world's liberty a mighty blow; if we succeed, we emancipate millions of earth's slaves.

As a class, we are making rapid strides upward in our profession—teaching is becoming one of the fine arts, but there are as yet few great masters; we are not perfect.

We are three-fold beings, physical, intellectual, and moral, and we perhaps neglect most the first of the three. Quite recently people have begun to see that teachers are overworked, and the press of the country is fighting right valiantly for the school-ma'ams. Doubtless, teachers often have too much

work placed upon them; but where one grows pale and nervous from over-work, ten become so from worry and want of exercise. The people, by their pity, cannot put healthy blood into our veins; the press, be it ever so doughty, cannot straighten our shoulders nor brighten our eyes; but freedom from care, heaven's pure air, and sweet sunshine can, if we will let them.

The cry of overwork among lady teachers would dwindle to a whisper if we would exchange our fancy work (if we are addicted to the dreadful habit) for a side-saddle or a walking-stick, and dispose of those outside cares with which so many teachers load themselves down.

Another thing with which sensitive teachers must contend is criticism. Now, from those who are capable, and give it in a kindly spirit, criticism is a very wholesome and desirable thing; but from those who are ignorant of what we try to do and are doing, or from those who add to love of fault-finding, egotism, and to egotism, malice, it is not worthy of notice, and the sooner we learn to pass it by with a smile the better for us and for our schools. And yet we all have known teachers to grow sick and discouraged over it. We must expect liberal donations of advice; some will want us to whip more, some less; some learned their letters first, then their spelling books, and want their children educated in the same good old way. We could not please all if we should try, any more than we could set our school clock according to all their time-pieces.

There are few of us, I opine, so hardened to fault-finding parents but have sighed more than once for a first-class position in an orphans' asylum. And yet it is very unprofitable to mind such things; we can do no better than to plant the best seed we have, and trust to Heaven's dew and sunshine to ripen the grain.

The time has passed in civilized communities for teachers to be selected for purely muscular development, but it has not yet passed, and never will, when the teacher's health may not be taken as an index of his school's vitality. A sick or physically worn-out teacher may go through the routine of school work conscientiously, he may instruct ever so wisely, and govern ever so well, but without the quickening spark which emanates only from that teacher whose energies are all about him, his school will never glow with enthusiasm; the result of his teaching will be a sodden, unleavened mass of half-understood facts.

As the teacher's blood circulates, so throbs the pulse of the school; and its mental activity depends more than many suppose upon the condition of the teacher's stomach.

It almost seems that we consider a healthy body a second-class article all through our educational scheme. Physiology is taught only in grammar schools, but why can we not be encouraged, if not compelled, to teach it in all grades? Little abecedarians are not disembodied spirits; they have livers and skins and lungs and teeth that need as much attention as do those of their older brothers and sisters. Children are urged on to intelligence concerning every thing but themselves and the conditions of health. Some pupils who can dispose of the compound relative "what" beautifully, suppose that the bodies are solid flesh

from the head downward. Some that can answer every question between the two covers of their geographies, and can draw maps that put nature to shame, have decayed teeth at twelve, and know not how to eat, sleep, or bathe properly.

The children are educated to make them happier, and better men and women, but happiness, and goodness too, to a certain extent, depend upon health. Then, whatever superstructure of intellect we may build, let us bury a human skeleton and a set of physiological charts under the corner-stone. Let us preach and teach the practical part of physiology and hygiene to the little children, and leave the technical part, as the whole subject is now left, till the cramming season preceding teachers' examination.

By moral health, reference is not made to freedom from such vices as intemperance, gambling, lying, and the like, for this would be an idle waste of words; but to energy, firmness, justice, earnestness, and their related virtues, which tend to make any vocation a success, but which are pre-eminently a teacher's requisites. If we have any peculiarity in our hand-writing, if we habitually make our letters too wide or too narrow, too long or too short, we all know how soon after entering a school we see duplicates of our peculiarity in our scholars' work. In just the same way many unconsciously copy the peculiarities of our gait and gestures, so also, do they become, unconsciously, imitators of our moral characteristics. A snappish, fault-finding teacher makes a quarrelsome school; a teacher jealous of a neighboring teacher's success makes the school jealous of its neighboring school; a little-minded teacher makes a little-minded school always, and on the contrary, the noble traits of a teacher are as invariably mirrored by his school. Nor does the influence stop with a collective result: the seeds for good or bad, for greatness or littleness, are sown in each individual child's nature, and become monuments of shame or honor to our memories.

Then if, literally speaking, our p's and q's, our r's and b's should be proportioned well and correctly shaded, how much greater care should we take to fashion well our moral r's and b's, and shade with a steady hand our p's and q's.

A teacher's power to do good or harm in a school depends, of course, upon the influence he has over his scholars; and this influence varies among teachers as it does among orators over their audiences, or among pastors over their flocks. We say of one who sways his pupils by his voice, of one whose approval or disapproval is always foremost in the minds of his pupils in the school-room or out of it, "He is a born teacher." Now such beings are among the rarest creatures of the Creator. Any amount of education cannot make one. There are people who pry so earnestly into nature's secrets, who are so eager for scientific truths, that, being translated to heaven, their first sigh will probably be for a bottle of *aqua regia* with which to test the pavements; but with all their astuteness, such people are not invariably good teachers. It takes something more than born-in-the-bone goodness to make one. There are those who rival the archangels in holiness, whose patience might have been the envy of Job, yet who, withal, have little influence over a school. In-

fluent teachers are beings more human than others—they do not expect perfection in children, nor total imperfection; they know them as they are with inherited weaknesses and acquired foibles, and remembering what a long St. Augustine's ladder they themselves have climbed, sympathize more than blame, and guide more by counsels than by commands.

The true teacher, remembering his own childhood, no longer practically adheres to the beautiful and venerable Block of Marble Theory. He knows that it takes something more human than a chisel to work on character, and that no rule applying to inanimate things is applicable to that which has conscience, affection, sympathies, and inherent energy.

There is a narrow moral ledge on which a true teacher stands, which may be described as among children, not of them. Those who stand below him, not having the moral back-bone ossified, partake of the childish jealousies and partialities of their pupils, and are, therefore, not suitable guides to them. Again: there are those who stand above the ledge, and are far removed from their scholars' sympathies, are cold and distant and infallible. The intellect may grow under their teachings, but such hands are not warm enough to lead the children of fallible humanity up to the moral fortresses of self-command and self-respect and healthy ideas concerning their duty to themselves, their neighbors, and their God.

IDA M. TWITCHELL.

Santa Barbara County.

WHAT THE CHILDREN READ.*

TEACHERS in cities and towns can scarcely be aware that the children in their classes are affected to a greater or less degree by harmful reading. Inquiry in the best school classes will show an influence more or less baneful at work. Questioning lately brought out that in a class of forty-five young people, of thirty who read the papers at all, nearly all looked first for the accounts of murders, suicides, and court reports. From the daily composition exercises of the same class, further, it was evident that at least eight or ten of its members read the class of objectionable papers about which we have been talking. But this is hardly to be wondered at, when one thinks of the statement made by a single newsdealer in the same town respecting his sale of these papers: "My sales of the class of New York papers you mention, madam, are as one hundred and twenty to one of the better sort of Eastern papers. On the days these papers are due, my counters are crowded a half-hour before the time by groups of young people eagerly waiting for them."

It would almost seem as if there might be an easier way to control this matter in California than in any other State, since it is true that most of these publications come from New York City.

In so far as defective intellectual education influences this taste, in so far are teachers responsible for its existence, and for a remedy.

* Conclusion of paper begun in the September JOURNAL.

Besides that, even if they were not responsible for this, it would still be a part of their duty, as "helpers and friends of mankind," to search the universe for antidotes and wisdom to administer them; the more especially, too, since for so long a time much of the burden of moral training has been shifted from the parental shoulders to theirs, until now it all is made to seem to belong there after the child is put into school.

Looking at the question from another side, it is my belief that it is the solemn duty of every teacher to bring her whole personal force to bear on the reform of whatever she finds wrong in the life of the children in her care: to see that they are morally fit to receive truth. At the expense of all other culture (if so be such expense is necessary), whose administration is in the hands of the teacher, the training of the moral faculties should be the one "planting and watering," most untiringly carried on. For upon the degree and success of this culture the very life of the State flourishes or languishes.

To come down to details: one must not cavil and find fault with, frown with knit brows and sour visage, at a boy who does a mean or bad thing; nor must he fling at him one morsel of cant, at the peril of his soul. (Pronoun intentionally indefinite.) In some patient and honest way show him, convince him of the wrong he does; and oftener than not he will do no more the thing he should not, for boys are not unreasonable creatures.

The teacher is bound to notice with vigilance, and not overlook or consider trifling, such common sins as prompting, cheating in class or examination, shirking, falsifying, impoliteness, rudeness, and disregard of property; in a word, to sharpen the moral perception in minor as well as major matters, so that the good will have its chances to act in the soul of the boy, and the bad will find no easy entrance. The strongest aids to this work outside of the teacher's individual force is the good in books.

There are myriads of good books; no one questions their power. Men shape their lives along a line which is parallel—perhaps at a long distance, but still parallel—to the line of life portrayed in the books they read. A man does not habitually read good books and do bad things, or think bad thoughts; his life partakes of the sort of spirit in his reading, and he is "hardly ever better than the books he reads," according to Bishop Potter.

We are poor teachers if we have not art enough or sense enough to show up the beauty of good books to children, so that they will choose them and despise the others. We know nothing of books ourselves in any saving way if we cannot open them to the children.

Further: I am not sure that often, in our methods of cramming and pushing the letter of text-books into the unwilling brain, we are not laying the foundation of a disgust, which reacts in a desire for the unworthy or the bad. We ought to know at least a little of the constitution of the mind before we dare to meddle with it; we ought to know that there are many authorized text-books which are not only not good, but absolutely mischievous, when applied to the wrong part of the brain. Among these are condensed and doubly condensed histories, as used generally. Many teachers of first and second grade classes not only allow but insist on verbatim memorizing of the text of

Swinton's United States History—a practice most mischievous in its results. We ought to know that the memory is not the brain; that the conservative faculties are not all there is of a boy; and that we do him positive and irremediable injury in more ways than one by making him commit to memory idiotic text-books, whose meaning he does not by the remotest possibility know anything about.

In large graded-school classes, there are indications every day which, if rightly interpreted, would strike dismay to the heart of the thinking teacher, if she considered them the results of her own mistakes. Unusually bright children are pushed forward into higher grades by ambitious teachers and parents, to satisfy a foolish, unthinking pride; undeveloped brain and body are taxed beyond their strength in a manner which an average farmer would consider ruinous, if applied to the colts in his stock fields. When these bright children come to the years at which they might rightly attempt advanced work, they are exhausted and overstrained; their minds are mediocre in grasp, and without elasticity. The brilliant young first-grade boy or girl, lauded by teacher and principal, when promoted into the high school, is conspicuous for nothing except inability and weak eyes.

These are samples of the kinds of work which make so many children ready to be pleased with, satisfied with, and then eager for the trashiest sorts of reading and thinking.

An English writer speaks of the memoriter method of teaching thus: "The power of a brain will ultimately depend much upon the way in which it is habitually exercised. Education should now be defined as an endeavor favorably to influence a vital process. In other words, it becomes neither more nor less than a branch of applied physiology. Physiologists tell us with regard to it that the common processes of teaching are open to the objection that they constantly appeal to the lower centers of nervous function which govern the memory of and the reaction upon sensations, rather than to those higher ones, which are the organs of ratiocination and of volition. Hence a great deal of what passes for education is really a degradation of the human brain to efforts below its natural capacities. This applies especially to book work, in which the memory of sounds in given sequences is often the sole demand of the teacher; in which the pupil, instead of knowing the meaning of sounds, often does not know what 'meaning' means. As soon as the sequence of the sound is forgotten, nothing remains."

The only recommendations of this method of teaching as a method are, that it is old, and that it is easy. Any dunce or stick can take a book and hear a recitation. It is the easiest way in the world *to pretend* to teach: no thought, no action, except mere passive hearing and quizzing, is required.

As to remedies for the first evil—the bad physical and moral training, things as they are now—the teacher must use her wisest and best strength to counteract; as to the future, it would perhaps be considered presumptuous to say that common sense and State economy would suggest the necessity of special instruction in this highest branch of woman's education—the rearing and training of children. There is nothing more strange in all our modern

political economies than that this should be the one thing of all others to which no moment's thought is given, and that it should be left to chance. The details of the best methods of living, down to the most common things, should be a part of every child's home education by practice, not by theory.

At school, all branches of study which direct the observing faculties are aids to this kind of practical culture. When children are taught from first to last with some reference to the fact that their eyes and other senses and their sense are to be *used*—in short, when they are taught and encouraged to see what is around them—then the girls as women, will be better housekeepers because they will see everything about their houses, and understand the unwholesomeness which comes from the neglect of trifles.

But since teachers must deal with things as they are, we must consider some means of curing the boys and girls of an already acquired taste for harmful reading. "How shall we do it?" do you ask? By means of enthusiasm in your own heart, create in them an enthusiasm for learning. Make the ways of learning pleasant to the child by making them living ways. It is the letter that kills, here as elsewhere.

When you find your boys reading bad books, double your efforts to make good books beautiful to them. In your school, read aloud in your best manner a few minutes every day some well-written book, suited to the age and capacity of your children. If you have mixed country schools, let some of the older children who read well take turns in this reading. Be exceedingly careful not to read stupid or uninteresting books—books over their heads, nor up to their chins, as a rule. Feel the mental pulse of your class often, and find what is its movement, and from that movement, regulate what you are doing for them. If you are sure a boy reads bad papers, talk with him, not about them at first, but about a book which you wish him to read. Find out how he likes it, and lend him another when he has finished. You will know the right time to talk about the papers if you observe well. Never tell a class what not to read without telling also what to read. Make it a point to own a few of the best books for children, of the sort suited to the age of your class, and have regular times to read them. "No time?" The same old mistaken cry. Teach less of what is useless in arithmetic, geography, and grammar, and you will have time. Teach your classes about the insects, animals, or plants common in your school neighborhood; if you do not know, learn. Be sure you do not attempt to teach any such subject, however, from a mere text-book knowledge; that alone is of but little account for your purposes.

Make your class exercises in daily reading the pleasantest lessons of the day, not a mere dead parrotting-over of sentences. Teach the children the proper way to learn a reading lesson, if you know it. It would be better to know it.

You will have some trouble at first in inducing your boys to read what is good: after having read trash for a long time, everything will seem dry and hard to understand; but success will follow intelligent persistence and the use of mother wit. Supposing you have a sixth-reader class, and the lesson is a part of "The Storming of the Castle," what a chance, after you have wrought

your class up to the highest pitch of interest by the proper reading of this spirited lesson, to take from your desk "Ivanhoe," and read on a little farther! Or to call on some boy who has read the story to tell a little more of it!

A few books suitable to read to little and very little children are Hans Andersen's stories; some of the ballads of Mary Howitt; stories in the bound volumes of *Our Young Folks*, *St. Nicholas*, *The Nursery*; The Four Little Sisters; stories about dogs; and some good work on Natural History, which the teacher can translate as she reads into the infant tongue.

On the desks of the teachers of next older grades should be some of these: Child's History of the United States; Dickens's Child's History of England and some of the juvenile stories adapted from his works; stories from Longfellow, Whittier, and Tennyson. Some of the best stories in verse have a great fascination for children, even the little ones. Among these I have used "The Pied Piper of Hamelin," by Robert Browning; "Little Ellie" and "Hector in the Garden," by Mrs. Browning; "Macaulay's Ballads of Ancient Rome"; "Evangeline"; "The Courtship of Miles Standish"; and Wordsworth's Narrative Poems; omitting what they would not understand.

Older classes can be directed to special volumes of Scott, Dickens, Taylor's Travels, Tennyson's Idyls, and Longfellow's longer poems—directed to them by readings from them given by the teacher. Indeed, there are scores of books I might name as helps to this end; these titles are only given as guide-boards.

Another means of grace in this reform might be found in the composition work, if it were rightly understood. Indeed, the wise teacher will not fail to find something by means of which to beguile the children into the beautiful and safe fields of good books, if she studies the matter with loving vigilance.

Put strong faith in what good books will do to aid you, and work up to your faith. "For books are not absolutely dead things, but do contain a progeny of life in them as active as the soul whose progeny they are; nay, they do preserve as in a vial the purest efficacy and extraction of that living intellect that bred them." (*Milton.*)

IRENE HARDY.

Oakland High School.

NEVER sacrifice a right principle to obtain a favor. The cost is too great. If you cannot secure what is right and needful for you by square and manly conduct, better do without it by all odds. A little self-denial is better than dishonor.

WHAT sculpture is to a block of marble, education is to a human soul. The philosopher, the saint, and the hero—the wise, the good, and the great man—very often lie hid and concealed in a plebeian, which a proper education might have disinterred and brought to light.—*Addison.*

BURIAL OF THE MINNISINK.

ON sunny slope and beechen swell
The shadowed light of evening fell ;
And, where the maple's leaf was brown,
With soft and silent lapse came down
The glory that the wood receives,
At sunset, in its brazen leaves.

Far upward in the mellow light,
Rose the blue hills. One cloud of white,
Around a far-uplifted cone,
In the warm blush of evening shone ;
An image of the silver lakes,
By which the Indian's soul awakes.

But soon a funeral hymn was heard
Where the soft breath of evening stirred
The tall, gray forest ; and a band
Of stern in heart, and strong in hand,
Came winding down beside the wave,
To lay the red chief in his grave.

They sang, that by his native bowers,
He stood, in the last moon of flowers,
And thirty snows had not yet shed
Their glory on the warrior's head ;
But, as the summer fruit decays,
So died he in those naked days.

A dark cloak of the roebuck's skin
Covered the warrior, and within
Its heavy folds the weapons, made
For the hard toils of war, were laid ;
The cuirass, woven of plaited reeds,
And the broad belt of shells and beads.

Before, a dark-haired virgin train
Chanted the death-dirge of the slain ;
Behind, the long procession came
Of hoary men and chiefs of fame,
With heavy hearts, and eyes of grief,
Leading the war-horse of their chief.

Stripped of his proud and martial dress,
Uncurbed, unreined, and riderless,
With darting eye and nostril spread,
And heavy and impatient tread,
He came ; and oft that eye so proud
Asked for his rider in the crowd.

They buried the dark chief ; they freed
Beside the grave his battle-steed ;
And swift an arrow cleaved its way
To his stern heart ! One piercing neigh
Arose, and on the dead man's plain,
The rider grasps his steed again.

LONGFELLOW.

THE READING CLASS.

THE teacher who expects to attain the best results in her management of the reading class, must be attentive to the following particulars : 1. She must comprehend what are the desired ends of her teaching of this class. 2. Knowing these, she should understand the best means and methods of reaching them. 3. She will have to be persistent in her efforts to accomplish them, and be able to know when a fair degree of proficiency is attained.

I propose only to say a few things concerning the first of these particulars—the ends to be accomplished in the teaching of the reading class. When I refer to the reading class, I wish to be understood as that class which begins with the child in its first attempt to learn the signs of ideas as associated with visible objects, and continues on up through every grade of advancement, till it finally emerges from the tuition of a teacher. The question which every faithful teacher should settle within her own mind is,

"What are all the objects to be arrived at in teaching reading? What is the nature of them?" If she has finally settled this matter, she should then familiarize herself with every principle, every method, calculated to develop that purpose, until to her mind they are as simple as the alphabet.

To one who has never given this subject much thought in its broadest sense, an outline of the main things to be accomplished may not be inappropriate.

1. *A Mastery of Words.*—The beginning point in the commencement of teaching every child is to teach him *words*. He must be taught to recognize them as the representatives of ideas, first as the signs of objects familiar to him; and as he advances, by reversing this order, for he then earns *ideas* by learning to recognize words which before were not familiar to him. When the child learns to know a word, he should be taught to speak it and write it. By the latter process he is taught to spell the word. It will not be attempted in this article to suggest methods. The skillful teacher's ingenuity will devise her own. The result is all that shall claim our attention. In the mastery of words, the pupil must learn: to *recognize* words; to *associate* the word with the *idea* it represents; to *speak* the word; and *spell* the word by *writing* it. The accomplishment of this result is not confined to the primary teacher, but will continue to be an object of importance as long as the pupil studies the art of reading. The methods only will need varying.

2. *Delivery.*—After the pupil has been taught a sufficient number of words to construct into sentences, he then should be taught to read them in a proper manner. The first principles of delivery should be taught them at once. The habits of articulation, emphasis, inflection, etc., are only perfected when they are enforced in early youth. As the pupil progresses, more of the principles of expression should be taught him, and when sufficiently advanced, the terms, definitions, rules, etc., of elocution should be mastered. All the arts of oratory, all the graces of the elocutionist, should be taught, if he continues in school long enough for their accomplishment.

3. *Increasing the Child's Vocabulary.*—No other subject is so important as this. When a pupil becomes the master of a large vocabulary of words and knows their meanings, he is then in possession of such means as enable him to *think*. Our ideas are always *thought* in words and *expressed* in words. If we notice our own cogitations, we will always find ourselves employing words to aid us in following out a train of thought. The child's knowledge of words should be as much expanded as is possible. Right here I will venture to suggest that the dictionary is perhaps the best aid in the accomplishment of this end. Giving definitions, synonyms, and the various meanings will be a most valuable exercise. As the pupil progresses, a study of the etymology of every new word coming up for discussion will strengthen this knowledge. A thorough drill in these exercises will prove most invaluable to the pupil in the pursuit of the knowledge of other branches.

4. *The Study of Language.*—The reading recitation affords many and

excellent opportunities for acquiring an intimacy with the structure of our language. The relation and government of our words may be taught a long while before the pupil is capacitated for the investigation of technical grammar. Certain slate exercises on the reading lesson will result in a development of the powers of expression. Children under skillful teaching will have made considerable progress in a knowledge of their language while yet reading in the primary readers. It should not be taught in a desultory manner, either ; the simplest principles should be first developed, and afterward more complex ideas mastered. What is taught should be thorough as far as it goes.

5. *Learning the Elements of other Branches.*—In our reading books there are many lessons which teach facts pertaining to other studies. Biography, history, geography, and science are all more or less represented in the reading exercises of our text-books. The teacher should see that they are fully understood by the pupil. It will often be necessary to supplement these lessons with explanations by the teacher, in order to make their meaning plain. It is proper that pupils have regular exercises in reading, writing, or script. Lessons placed on the board by the teacher, in which are stated the elements of science, or some other branch of knowledge, will answer a two-fold purpose—a reading lesson, and a lesson in a collateral study. Such lessons heighten the interest, quicken the thinking faculties, increase the common fund of knowledge, and improve the memory.

6. *The Study of Literature.*—Just now this subject is receiving some of the attention that its importance deserves. While it is impossible to discuss this matter as fully in a brief space as it merits, a hint ought to be sufficient to the wide-awake teacher, that her work is not satisfactorily or effectually performed if she pass this matter unheeded. Biographical sketches should be written on the board, and the pupils encouraged to hunt up information on the same subject for themselves. They should be further required to write such sketches. They must be instructed in the peculiarity of style of each author. The productions should be analyzed, and the choice thoughts memorized. By beginning with the child at an early age, and teaching no more than it is able to comprehend, and keeping at it until it has grown into the young lady or gentleman, a large amount of culture in this direction will be quite perceptible.

7. *The Cultivation of the Voice.*—If the teacher is perfectly well informed regarding all that is incumbent upon her in developing a proper culture of her pupils; she will not neglect this. No rules are to be given here. Pleasing voices delight us all. They impress us agreeably or otherwise according to their character, and if there is such a thing as improving an unpleasant voice by cultivation, that teacher is greatly to blame who fails to make an effort towards its accomplishment. The voice is susceptible of cultivation to a great degree of power ; its expression may be made beautiful and varied; and its care should constitute a large share of attention. The nature of certain kinds of food, the dress, the use of stimulants, and exercise, should be fully explained to every one, and all be required to conform to such rules as will promote and preserve its power and beauty.

8. *Cultivating a Love for Reading.*—No teacher has fully succeeded who has failed to implant in her pupils a passionate love for reading. Not reading for mere entertainment of the mind, but the nobler, the higher uses of seeking wisdom in the realm of thought, as it is to be found in books and papers. That individual is poorly prepared for life who has not been taught to enjoy the great pleasure of perusing the thoughts of others. Reading should not stop when the school life is ended, nor when one settles down into a home and business of his own. All should read, not anything and everything, but should be taught to read in a systematic way. Thus will they round out their intellectual talents in all directions, and verify the truth long ago stated by Bacon, that “Reading maketh a full man.”

T. W. FIELDS.

Indiana School Journal.

A DEFECT IN THE SCHOOL SYSTEM OF CALIFORNIA—No. II.

YOUR plan of a State Reform School for disorderly children I have been thinking over, and am a little curious to know what the statistics of such institutions may be in the States where they are now in operation. How extensively are they made use of? What sort of persons do they send into active life? What is the effect of such institutions upon the minds of the inmates? Do they not lose their self-respect, and regard their confinement as a sort of disgrace?

It would seem to me that children coming from such institutions into the world would be looked upon by the general community with a grave suspicion; very much as we now regard those who are fresh from the State prison. And if this should be the case, would we not by establishing such a school be educating men and women for lives of degradation and crime?—*Extract from letter from Hon. William H. Jordan, member of the Board of Education of the city of Oakland.*

During my boyhood I lived near a State Reform School, and often saw the boys at work, at play, out with their brass band picnicking; and taken altogether, presenting to my childish eyes an ideal life. Many times I thought if it proved impossible for me to get a position as a drummer-boy or a newsboy, I would get our congressman to secure me a place in the Reform School. Those ambitious thoughts vanished as I grew older, but I mention them simply to show that the inmates of the Reform School were not looked upon as criminals by the public.

Reform schools were seldom thought of by me from that time until I was a member of the board of education. Questions of great gravity were constantly coming before the board. Here is a thieving boy; shall he be committed to jail, and forever marked as a criminal, or shall he be returned to school to sit beside your child or mine?

The result of these frequently recurring questions was an article in THE PACIFIC SCHOOL JOURNAL for November, 1881. That paper brought me over fifty letters, and was commented on favorably by quite a number of our coast papers. From among the letters, I have quoted from the only one that did

not give the movement towards establishing a State Reform School unqualified indorsement.

All who know Mr. Jordan are well aware that he is a true philanthropist, and that any questions he may ask are worthy of consideration. My regret is that I cannot spare the time to give this matter the attention it deserves.

I have secured a great mass of statistics based on reports from many institutions, but the following gives a fair idea of them all—I quote from a letter I received from Prof. T. J. Charlton, Superintendent of the State House of Refuge, Plainfield, Indiana: "Our per cent. of boys reformed by this school is ninety-four per cent. Any good Reform School ought to secure over ninety per cent." Suppose the many thousands of boys who have been in that institution had been committed to jail, what per cent. would have made good citizens?

Prof. Frank M. Howe, Superintendent State Reform School, Providence, Rhode Island, writes me: "Other institutions are places of punishment and servitude. A reformatory takes young boys (many of whom have no homes, or worse than none), and keeps them from becoming criminals. They not only learn to work, but get a *good education*, besides teaching them how to become *good* and *useful* members of society.

" You of course know many of the boys found in such institutions have never had any advantage of attending school, and if left to run the streets, would in the end be sent to the work-house, or perhaps a worse place. Wherever such institutions have been founded, they are conceded by all who know anything of their workings to be of the *greatest* importance in doing good."

After an existence of twenty-six years, the Board of Control of the Michigan State Reform School makes the following statements in their report:

" A thorough investigation of the subject, a visit to the Reform School, and an examination of its conduct, of the boys in the school, in the workshop, or on the farm, in the chapel and on the play-ground; the thorough system of order, regularity, and discipline pervading the whole; the physical condition of the boys, and the general appearance of contentment—cannot fail to impress the visitor with the wisdom of those who projected this great charity, and its successful working in every particular. As an investment, viewed from a purely business standpoint, it pays well; for the little waifs who are just about to enter the broad avenues to crime, which in most cases are the only openings before them, are rescued, properly trained for useful life, and transformed from expensive consumers to industrious producers, greatly lessening the number who are to occupy hereafter our prisons and almshouses. . . .

" The boys no longer regard themselves as convicted criminals, nor consider their residence at the institution a disgrace.

" Efficient teachers instruct them daily in the more important studies. They acquire habits of industry, cleanliness, and regularity, and go forth upon the world better prepared to meet and overcome its difficulties than a large proportion of those whose entrance upon the stage of life was attended more promising surroundings."

General Eaton, United States Commissioner of Education, says in his last annual report: "The work carried on by the Reform Schools of the country is worthy of particular attention. When the scope and value of these schools is correctly understood, they will be liberally supported, improvements in them will be provided for and appreciated, and similar institutions will be established in States where none now exist."

In answer to Mr. Jordan's question as to how extensively these institutions are made use of: There are twenty-three in the United States, and they have had one hundred and thirty-three thousand eight hundred and twelve inmates. In almost all of these schools children between the ages of seven and sixteen guilty of any act punishable by law are admitted, after examination, by justice of the peace or other designated officer. Children of the same ages who have committed no legally punishable act, but are guilty of idleness, vagrancy, decidedly mischievous propensities, or determined rebellion against parental authority, are also admitted. There is no doubt but that such an institution is sadly needed in California to-day as a supplement to our school system.

Is there a teacher, a preacher, a judge, or a lawyer but will agree with me in this conclusion? The members of the above-mentioned profession should successfully agitate this subject. It is really foreign to the province of a physician. To-day, before the Legislature convenes, is the time to impress our senators and assemblymen with an idea of the utility of a State Reform School.

WALTER LINDLEY.

Los Angeles.

THE TEACHER'S CONSCIENCE.

IN most respects the teacher's conscience should closely resemble the conscience of other intelligent and well-trained members of the community. Thus, it hardly needs to be said that teachers, like other people, ought to be just, temperate, neat, patient, gentle, and punctual. These are duties of universal obligation which are no more and no less binding upon teachers as individuals than upon other men; but in view of the publicity and scope of the teacher's function, the community has undoubtedly a greater interest in the practice of these ordinary virtues on the part of its teachers than on the part of most of its members. The character and conduct of most people influence, outside of their own families, only a small number of adult associates; but the teacher serves as an example and guide for large numbers of observant, susceptible, and imitative youth. The conscience of the teacher sets a standard of conscience for his pupils; his daily conduct supplies their most impressive lesson, and it is his highest function to develop and train their sense of duty. The teacher who, as the result of all his intercourse with his pupils, has strengthened in their hearts the authority of the "I ought" and "I ought not" has rendered them the best service which one human being can render to another.

To many conscientious teachers it is a formidable thought that their ultimate influence may depend upon qualities in themselves of which they are unconscious, or which at least they have never designedly either cultivated or repressed. Almost every grown-up person who reflects upon the effect which each of his several teachers had upon him, is surprised to find that some subtle or rarely manifested quality, some occasional act perhaps inconsistent with the general character, some habit seemingly of small moment, made much deeper impression upon him than the obvious qualities, regular modes of action, and apparently important habits of the teacher. A man of many accomplishments, of dignified presence and refined character, is the head of a large school for a generation; and in the end it appears that the most vivid impressions which his old pupils retain of him are that he was very clean and always tidily dressed, and that his speech was singularly clear and accurate. Another man, slovenly, quick-tempered, rough in speech, and almost brutal in manners, is chiefly remembered for the manliness with which he occasionally confessed his errors and retracted his wrongful accusations. A college professor teaches, prays, and exhorts with signal power, before a rapidly flowing stream of young men; and thirty years afterwards a sudden pall falls upon a cheerful company of his former pupils, themselves grow gray, as they recall how he used to tell his classes on what passages of the text-book they would be taken up at the annual examination before the unsuspecting visitors. A young man of moderate parts and feeble health struggles through a few years of service in a great school before he dies. He was but a poor teacher; yet hundreds of men will never forget the unaffected reverence with which he repeated every morning the Lord's Prayer. Perhaps this picture which he left upon his pupils' minds has been as useful to them as the arithmetic and grammar, which he failed to teach them, would have been. The practical lesson to be drawn from such facts as these is that a teacher needs an active imagination, and a conscience watchful and quick—an imagination which enables him to see himself through young eyes, and a conscience which is sensitive at all times, and which takes cognizance of things incidental and seemingly trivial, as well as of things great and frequently recurring.

Within the proper limits of this paper room may perhaps be found to discuss, very briefly, four points of a teacher's duty which are not always much emphasized; namely, his duty to cultivate in his pupils—1. The spirit of inquiry; 2. Exactness or truthfulness; 3. The historical sense; 4. The sense of honor.

1. It is the too common habit of elders to repress, or try to repress, in children and young people, the spirit of inquiry which is natural to them, and to make them accept an answer, explanation or decision based on authority, instead of encouraging them to reach their own conclusion through adequate investigation. Linguistic studies foster, in both teachers and pupils, the inclination to rely on usage; mathematical studies cultivate the taste for logical demonstration; and scientific studies, of all the studies accessible to children, are best adapted to develop and train a just and genuine spirit of inquiry. Now, a daring spirit of investigation into the laws of nature, the customs and traditional

opinions of society, the forms and processes of government, and the rules and results of trade, is characteristic of the times, and it is of the utmost importance that not only the few leaders of opinion, but the common people also, should understand what candid research is and implies. No adult who thinks at all can in these days help inhaling the pervading atmosphere of free inquiry, and every child should be early habituated to it. The teacher should seize every opportunity to make his pupils inquire, observe, and reason for themselves on every subject which can be brought within the range of their intelligence. He should use every means to restrict the appeal to authority, and to strengthen the habit of reasonable inquiry and consequent determination for one's self. Even when enforcing that unhesitating obedience which is often necessary to the well-being of a school, the republican teacher should remember that submission to a law the grounds of which are understood and accepted makes citizens, but that submission to an arbitrary command from fear of punishment makes slaves.

2. Another very important habit which it is the duty of the teacher to inculcate is the habit of exactness or truthfulness of thought and speech. A great step has been made in this direction when a child has been taught that it is a hard thing to get at a fact, to prove a proposition, or to establish a truth. Very few adults have any idea how hard this process is in history, language, philosophy, æsthetics, natural science, or indeed any department of knowledge. It is a natural tendency in children and all uninstructed persons to accept unattested facts and unproved conclusions which happen to fall in with their pre-conceived notions or prejudices. This tendency it is the duty of the teacher to combat at every turn, and with it the similar tendency to generalize hastily from a few instances. All practice in exact observation and exact description cultivates truthfulness, and this practice it should be the care of the conscientious teacher to provide. It is all-important that the teacher set an example of truthfulness. If he pretend to a knowledge which he does not possess, if he hesitate to avow on occasion his ignorance or his need of further study, if he be loose and slipshod in his own statements and descriptions, he must not expect to succeed in teaching the children who are exposed to his influence to be truthful. Perfect candor is an indispensable quality in a teacher. Children are very quick to detect any lack of this virtue in their instructors and governors; indeed, like all inexperienced persons, they are prone to attribute deceitful conduct to honest people.

3. Again: it is the duty of the teacher to cultivate in his pupils from a very early age the sense that they are bound by indissoluble ties to past and to future generations; that they cannot live to themselves alone; that they belong not only to a family, but to a town, a State, and a nation; and that they share in all the worth and wealth, and all the barbarism and misery of their race. Biographies, family histories, local monuments, grave-yards, town annals, public ceremonies and observances, and the social and political organization with which children come in contact, must be made the vehicles of these ideas of common interests, rights, and duties. Children and young persons are naturally selfish, absorbed in the eager pursuit, from moment to moment, of what seems to them good at the instant, without thought of their relations to others. This supreme selfishness the cultivation of the historical sense tends to moderate and subdue.

4. Finally, the conscientious teacher ought to use every endeavor to implant in the minds of his pupils a nice sense of honor. This sentiment, which makes part of every fine or noble character, is at bottom a just sense of what is right, true, and generous; but as applied to one's own consciousness, it is nearly equivalent to self-respect. Attributed in times past only to the privileged few, it must become the possession of the many, if free institutions are to prove durable. That increased attention to the cultivation of this sentiment is needed in schools of all grades may be inferred from the deplorable state of student opinion in colleges concerning such dishonorable practices as presenting false excuses, signing deceitful statements in order to secure trivial or substantial advantages in violation of rules, answering falsely at roll-calls, and cheating at examinations. Young men who are guilty of these practices in the colleges of the Northern States, do not, in general, lose caste with their fellows thereby; and yet college students are the selected product of American schools. It is said—and it is to be hoped truly said—that in Southern colleges a wholesomer condition of public opinion prevails. The means of cultivating this sense of honor are chiefly these: In the first place, the conscientious teacher ought invariably to make profound distinction between dishonorable offenses and those violations of necessary rules which may be inadmissible, indeed, but are not inherently vicious. It confounds all moral distinctions in the minds of his pupils if a teacher rebuke and punish lack of application, pranks, or noise in the same manner as lying and cheating. Secondly, the teacher should invariably express the utmost reprobation of dishonorable conduct. Thirdly, he should hold up for the admiration of his pupils the words and actions of men and women who have conspicuously exemplified the meaning and worth of honor.

PRES. CHAS. W. ELIOT.

Harvard College.

POPULAR EDUCATION.

CHANGE is a leading characteristic of nature. Creation has covered the earth with variety. The waving fields which to-day are and to-morrow are not; the changing seasons; succeeding generations born with new aspirations and in improved circumstances—make this fact admissible. Historically, nations have their birth and decay. The national experience which history records causes us to look with apprehension toward the time when we must resign the reins of government to others. Civilization, more especially American civilization, has come to a stage of progress where the nation is behind and unprepared to solve its mysterious actions. There is, therefore, a just and necessary cry for reform in our systems of instruction. The demands of advancing civilization crowd thick and fast upon us, and unless these demands are supplied we shall retrograde. Here is our glorious country, fruitful in population, unlimited in resources. Every hill and valley has locked in its bosom that which can make a people happy. Across its fertile

plains, as the thunder-cloud across the heavens, rolls the locomotive. Here free speech, a free press, and free schools are found, protected by the stars and stripes, giving us a liberty no king, emperor, or czar can molest. With all this means of prosperity, civilization makes its demands, and if unheeded, will cause history to repeat itself on this our native soil. But why need the trembling pessimist complain? Because the horoscope of the present presages no good for our country's future unless these desired reforms are made. What need we, then, to sustain our prosperity, to maintain our integrity, to sow the seeds of civilization, which future generations may reap? What are these demands?

Is it wealth or power? No. We know "how fatal to republics is the race for physical greatness and aggrandizement." Therefore we will have none of these. It is elevation, progression, a better civilization, that we must have. Commensurate with the support of its people and the order of its intellect is a nation's prosperity. There must be no mushroom growth, no ginger-bread work, but an everlasting granite foundation; then we may "lay the architrave" in the perfect security that the golden pinnacles of our grand superstructure will reflect the resplendent rays of the sun of ages.

We are a nation of speculators. Every political or social move—yes, every educational movement—is measured by its pecuniary issue. Are not brains of more value, of greater utility, and of far more necessity than gold in the warfare against ignorance? If they are, we then need better schools, a more universal attendance, and a higher culture for our instructors. We need a more universal and deeper interest in the welfare of our nation's young intellect. Sordid ambition should be crushed out, and brains—pure, unadulterated brains—should take its place.

All civilized nations have manifested an interest in this question. With mingled surprise and interest we peruse the literature of antiquity. Her scholars are as scarce and priceless as diamonds among the common pebbles with which they are found. They reached a high round in trying to scale the ladder of truth; but the masses remained ignorant. Brains were bound by the thongs of ignorance and superstition. (To some extent it is still so.) In Egypt, caste robbed thought of liberty, abetted superstition, and mummified the national character. In Greece there was a sort of national education established; but it was not of that character which insured national perpetuity, and Greece was cut off in her prime. Their system of education consisted in muscular, prosaic, and poetical controversies. It was deemed the highest honor to wear the laurel wreath, and it oftentimes fitted the brow of ignorance, and rustled o'er a sluggish brain. Fame encouraged effort, made these exercises universal, and proved a benefit to the nation in time of war. There was no learning among the masses. There were a few schools of oratory and philosophy, but the leisured and wealthy only could become their patrons. In Rome slaves were the teachers—ay, the private tutors. The energy of the masses was utilized for the support of the wealthy and powerful. Here the desire for martial prowess fostered mortal ambition. Rome sank amid the gloom of barbarism, and was wrested from existence by the turbulence of the Dark Ages.

For centuries in the Christian era learning was monopolized by the clergy. We all know how, like furious tempests, ignorance, superstition, and persecution swept up and down the earth during the many centuries of the Dark Ages. With the Reformation came men who stood forth in support of "popular education." From that day to the present, the idea of educating the masses has grown. Not until the sixteenth century was reading and writing considered worth the learning. In 1696 Scotland framed a law taxing the people for the support of parish schools. No nation emulated her example until after the French Revolution. Since 1815 "popular education" has been the chief aim of government.

Co-equal with the progress of civilization is the advancement of education. This shows experience to be the mother of educational reform. No body of enthusiasts, however jealous, can rush forward with perfect and *just* systems of education. "It took ages for picture writing to turn to written language." "Rome was not built in a day." But it is wonderful what advancement has been made in the last century.

It was left for America to advance and institute systems of education which have proven beneficial to the *poor*. Not until the Mayflower pushed out into the open sea did freedom begin. Not until this grand sisterhood of States marched upon the stage of action—until these United States shook off the shackles of serfdom and repulsed tyranny—did "popular education" find a champion, and the poor realize their Utopia.

What has America done to advance the intelligence of the masses? A nation, the foundation of which rests upon the freedom and equality of men, would be an asylum for the rest of the world. This was and is the character of the United States. * * * * So America became "The Land of Promise" for the broad-minded, advancing Anglo-Saxons, and hither they came. Men who were willing to sacrifice their lives for liberty of expressed thought and worship, formed our first census. Here they were unrestrained in exercising their advancing genius. They began to erect schools; a new era in the world's literature sprung up. "Those colonists who taught and wrote have ere this reaped a posthumous reward in the most vigorous offshoot that the literature of any nation has ever been able to put forth. American literature has a right to a share in the heritage of the countrymen of Caedmon, of Chaucer, and Shakespeare, but its enforced independence and familiarity with new surroundings has given it character and deserts of its own." Education was one of the grand prevailing motives of our forefathers. Harvard and Yale stand as evidences of this fact.

It is not strange, then, that America should take the lead in educational reform. Here there has been no wedded Church and State; no educational reform has been opposed by efficient ecclesiastical power; but on the contrary, the church has been a most potent advocate—America has profited by the experience of tyrannical persecution. Being isolated, she has not been compelled to waste her resources in self-preservation. Since, in the hands of her people was vested the power of government, the perpetuity of the nation rested in their intelligence. Hence she framed free schools, ignored "blue blood," and gave credit to intelligence in every station.

Solano County.

C. B. WEBSTER.

A HOODLUM.

CHAPTER XII.

"I HAVE been thinking of my old life," said Donald one day, as he and Carl threw themselves down under a tree to take their nooning, "and I have been trying to understand why so many boys grow up to be hoodlums."

"And what are your conclusions, most sapient anthropologist?" inquired Carl, smiling at Don's somewhat dignified manner of speech as contrasted with the boy's position, for Don had his feet considerably higher than his head, and was exploring a hole in the toe of one boot with a long pointed stick.

"The principal cause is idleness," replied Donald. "If those boys had useful employments to occupy their time and their minds, they would keep out of mischief."

"But they wouldn't work if you offered them employment," objected Carl; "at least most of them would not."

"If they had always been trained to work, or if it was popular to work, they would. Boys want encouragement to work. They want company and direction, but not too much bossing. A boy likes to have his own way."

"One boy I know does, most assuredly," assented Carl.

Donald paid no attention to this insinuation, but continued: "Evil associates are perhaps the greatest hindrances to reform which a hoodlum has. When all of the boy's companions are idle and vicious, it is up-hill work to be better than they are. The other boys resent attempts to be better than they are with sneers and curses and blows, and the blows are not the hardest of the three to bear."

"Yet I have known idle men who kept bad company, and who were not so very bad," said Carl. "I have thought they were too lazy to be real bad."

"I think it takes a stirring fellow to be a great rascal," admitted Donald. "I was reading in a book the other day that many men were born criminals, and I believe that. I have known boys who would lie and steal just for the fun of it, when truth or honesty would serve them better. But when a person is sick, he can often be cured, and I believe good healthy food and work would help cure such people."

"You would have to make a greater change than that," said Carl. "The criminals mostly come from the crowded, dirty parts of the city; and where people are huddled together in filth and foul air, you can't expect to find virtue triumphant."

"I read in the papers of arrests in the Chinese quarters for violating the cubic-air ordinance," said Donald, indignantly; "but no one ever thinks of arresting the rich men who rent out those miserable shanties to the rumsellers and their followers."

"I think that the people will soon be wise enough not only to vote for prohibition, but to intelligently enforce it," said Carl. "The drift of public sentiment seems to be moving strongly that way. Opportunity makes three-fourths of the crime of this world, and he who removes temptation is wiser than he who trusts to restraining penalties."

"I should think teachers could help the temperance cause a great deal," observed Donald.

"So they could," replied Carl, "if they were in earnest and worked unitedly. But there are many teachers who use a little alcohol themselves, and of course such ones are not workers in the temperance cause. There ought to be a law requiring every teacher to sign a pledge saying that he will not use liquor, tobacco, or bad words so long as he holds his certificate; and when he breaks this pledge, that ought to be cause for canceling his certificate."

Such a law as the above is really needed, and it is in the power of any county board of education to adopt a resolution refusing to grant a certificate to a teacher unless he will sign and keep such a pledge. And those who already hold certificates in the county could be required to sign such a pledge also by a resolution declaring all certificates void after a certain date, unless such requirement was complied with.

It would take but little effort from temperance men to get a general law of this kind passed by the next Legislature; and as the teacher has to swear to his reports, a clause could be inserted therein asking whether he has strictly kept the pledge.

"I think it is hunger that makes many a hoodlum begin to use tobacco and liquor," said Donald, thoughtfully. "When I was in San Francisco, I used to get so hungry at times that I would chew anything or drink anything I could get."

"Want and sorrow drive many a one to destruction," assented Carl. "The warmth and the vile enjoyments of the saloons are only too enticing. I have sometimes thought that a public reading-room, where conversation, games, music, and cheap wholesome drink and food could be had, should be established in every crowded quarter of a city. Most of our reading-rooms forbid conversation and fun that is a little noisy. None of them, I think, have an organ or a piano, or attempt to supply a little free music in the evening; and an organ in such a place, with a number of copies of some good song-books, would entice many a man from drink and saloons, from temptation and evil company. I have also thought that teachers in cities might easily start and keep up such a reading and music-room by taking turns in supplying music and overseeing the room. Such a task would be a light burden upon four or five teachers, and I have little doubt the public would willingly support such an institution. There are plenty people who are always willing to give towards a real charity, especially if they can also increase their own pleasure by so doing."

The story of the hoodlum is finished. Rescued by sympathy and intelligence, taught to love work and virtue, trained to habits of purity and industry, anxious to do his work in the world and for the world, he is no longer a hoodlum, but a useful member of society. A future of usefulness and public esteem awaits one who, had he been left to the mercies of the street, would probably have become a criminal and an outlaw; a terror to society and a burden upon the industrious.

Nor does the evil stop here. Marrying with others equally vicious, the children of the wicked have the curse of inherited vice and disease, and get beyond all but a partial reclamation. Fortunately nature, apparently less merciful than man, but wiser in the end, comes to the rescue, and finally ends the career of vice with the grave.

Much can be done by giving the children of the streets homes and proper training; but this is only a partial remedy. Until society protects itself by preventing the breeding of a criminal class by licensed dram-shops, and finical courts who see a quibble of law much plainer than an undoubted commission of crime; until crime and disease are forbidden to marry, and kept from begetting their like—hoodlums will still be found. Since the organization of society, the healthy, the prudent, and the industrious have worked to support the sickly, the wasteful, and the indolent. How to produce better race-horses and fatter hogs has received far more attention than the peopling of the earth with a nobler race of men.

Those who should be the fathers must labor to support the children of others who only look upon their offspring as the undesired but unavoidable result of their selfish lusts.

So long as this is so, can we wonder that there will be hoodlums upon our streets and criminals in our jails? Great reforms move slowly, and the selfishness of man, though necessary to progress, is also the greatest obstacle at times to the advance of our race.

Santa Paula, Ventura Co.

CHARLES M. DRAKE.

[THE END.]

ABSTRACT OF THE REPORT OF THE COMMISSIONER OF EDUCATION
FOR 1880.

SCHOOL SUPERVISION.

With respect to school supervision, the Commissioner says that the theory has received much attention in the United States, but we are not able as yet to report satisfactory progress in many practical results from its application to rural schools. Two States that adopted county supervision have abandoned the policy. On the other hand, the number of cities and towns in charge of superintendents has very greatly increased. In the West and South, where the county instead of the town is the important civil unit, county supervision is accepted as a fixed fact. In a few States county superintendents have sufficient pay, and are selected with due reference to their qualifications and fitness for the management of country schools. Some States have shown a disposition to associate with the State superintendent a board of education having the same relation to the school affairs of the entire State that municipal boards have to those of individual cities. The members of the boards of education (whether State or city) perform their duties without compensation; but members of State boards sometimes are reimbursed for expenses incurred in the discharge of their duties.

WOMEN AS VOTERS AND SCHOOL OFFICERS.

Women's opportunities to influence education as voters and school officers have been greatly enlarged. They may vote at school meetings in Kansas, Nebraska, New

Hampshire, Vermont, Dakota, and Wyoming, at school elections in Colorado and Minnesota, and for members of school committees in Massachusetts. They can vote at school meetings in Michigan and New York if they are taxpayers; in Washington Territory if they are liable to taxation. Widows and unmarried women in Idaho may vote as to special district taxes if they hold taxable property. In Oregon widows having children and taxable property may vote at school meetings. In Indiana "women not married or minors, who pay taxes, and are listed as parents, guardians, or heads of families, may vote at school meetings." In Kentucky any white widow having a child of school age is a qualified school voter; if she has no child, but is a taxpayer, she may vote on the question of taxes. Women are eligible to school offices generally in Illinois, Iowa, Kansas, Louisiana, Massachusetts, Michigan, Minnesota, Pennsylvania, Vermont, and Wyoming; to school district offices in Colorado; to any office except State superintendent in Wisconsin. They may serve on school committees in New Hampshire and Rhode Island, as school trustees in New Jersey, and as school visitors in Connecticut. Some offices are open to them in Maine, and all offices in California, unless specially forbidden by the Constitution. In Utah no discrimination on the ground of sex is made as to voting in general.

EXAMINATION OF SCHOOLS.

The excellent effects of the periodical examination of country schools by qualified officers cannot be questioned. The examination in Norfolk County, Massachusetts, presented so fully in the State report for 1879, illustrates a simple and practical method of testing the results of elementary training. From the general interest manifested in the publication, it might have been expected that the present year would have afforded information of similar exercises in many other places; but in fact no efforts in this direction are reported, save from Massachusetts, Pennsylvania, and Cook County, Illinois.

INSTRUCTION IN MORALS.

The necessity of systematic instruction in morals is generally admitted, though the subject finds as yet very vague expression in the majority of school reports.

From a detailed examination of the provisions relating to this subject, it seems evident that the statement quoted from the Massachusetts report is applicable to the schools in general; namely, that "there is no reason to suppose that our public schools are fulfilling their office in this respect any less effectively than they have ever done at any period of our history. They are more efficient now than in the past, and the influence they are exerting for good is beyond all reckoning."

SCHOOL STATISTICS OF CITIES.

The statistics of public schools in 244 cities present the following totals: Total population (census of 1880), 10,700,800; school population, 2,661,498; number of school buildings, 4,042; number of sittings for study, 1,029,616; number of teachers, 29,264; pupils enrolled, 1,710,461; average daily attendance, 1,105,763; estimated real value of property used for school purposes, \$88,914,413; total receipts, \$27,489,304; total expenditures, \$25,074,360. The average expenses *per capita* of daily average attendance for instruction and supervision vary from \$5.83 in Carbondale, Pa., to \$25.88 in Virginia City, Nev.; and for incidental expenses, from \$1.02 in Carbondale, Pa., to \$11 in Sacramento, Cal.

About one-sixth of the whole school population, one-tenth of all the teachers, and more than one-fourth of the annual school expenditure reported for the entire country are included in the cities enumerated. Their school affairs are managed by boards of education, which are variously constituted. The election of women as members of city boards is a noteworthy feature of the history of the decade. The executive officer in nearly all of the cities is a superintendent.

Twelve cities report one or more assistant superintendents. In a number of cities which do not report such assistants, the grammar masters, or supervising principals, as

they are sometimes called, perform the duties of supervision, teaching in their school-rooms but a few hours each week. No assistant superintendent is reported for Boston, but the committee employ a corps of supervisors, who so far have not been subject to the direction of the superintendent, thus presenting the mischievous anomaly of a double-headed supervision. Philadelphia is the only large city in the United States having no superintendent.

Comparing the whole school population in these cities with the entire enrollment in public schools, and the estimated enrollment in private schools, it appears that twenty-one per cent. of the school population are not under instruction. The proportion of these who are in danger of growing up in ignorance and vice is greatly reduced by the number above six years of age, who are yet, in the opinion of their parents, too young to be sent to school, and the number above twelve who are necessarily put to work to aid in the support of the family. The vast majority of those enrolled in the public schools are in the primary and grammar grades. If the figures could be extended into these details, it would appear that the enrollment and average attendance between the ages of six and twelve approach much nearer the school population between those ages than is the case for the years between twelve and sixteen. With all proper allowance, however, there is enough truancy and absenteeism in the cities to excite alarm.

There is a marked uniformity among the cities in the conduct of elementary instruction; namely, that which precedes the high school. It comprises generally eight grades, each grade corresponding to one year. The studies do not differ materially in the different cities. Sewing has been made a regular exercise in three grades of the girls' grammar schools in Boston. The average age at which pupils complete the course of elementary study is fourteen years, which is the age at which compulsory attendance terminates in German-speaking countries.

The most important fact in the recent history of city schools is the increased attention given to the primary classes. The disposition is everywhere manifest to fix a reasonable limit to the number of children assigned to one teacher, to appoint and retain teachers for these primary grades who can adapt themselves easily to the child's nature, to impose less constraint upon the natural activities of childhood, to retain pupils fewer hours in confinement (in some of the best systems not more than three hours a day), to cultivate the perceptive faculties, and to unfold the intuitions.

The average number of children to one teacher is about sixty, but it is generally conceded that the number should not exceed fifty. The committee of Boston allow an assistant in the fifth and sixth classes whenever the number of pupils exceeds fifty-six, the intention being to have no more than fifty pupils to a teacher.

Temporary expedients are employed in other cities for the accomplishment of the same purpose.

In the revision of the Boston schools in 1879, the same grade of certificates of qualification was fixed for the assistants of the primary as for those of the grammar schools. In Philadelphia, the same year, the term of service was made the basis of compensation. Both of these measures operate to the advantage of the lower grades. In some cities special care is taken to furnish primaries with teachers of the rarest and best qualifications.

Great improvement has been made during the decade in methods of discipline, and in Eastern cities, especially those of the New England States, the organization of a truant service has reduced truancy to a minimum.

Notwithstanding the numerous complaints of poorly constructed buildings, defective ventilation, etc., the last ten years have been marked by progress in all the sanitary conditions of school-houses.

In many cities the care of these buildings is intrusted to special officers, and many reports include a representation of the actual condition of school buildings.

The lack of competent architects, the indifference of the public, and the want of funds, are the main obstacles in the way of the perfect adaptation of city school buildings to the convenience of the work and the requirements of health.

EDITORIAL DEPARTMENT.

THIS YEAR AND THE NEXT.

WITH this number the JOURNAL completes its sixth volume. The year has been a prosperous one for all enterprises on the Pacific coast, and the JOURNAL has had an ample share of the general prosperity. During the past three months especially, there has been a marked increase of interest, accompanied by many accessions to our subscription lists, and an enlarged advertising patronage.

The increase in new subscriptions, largest throughout the rural districts, is a gratifying indication of appreciation on the part of our Pacific coast educational public.

Nor need our teachers be ashamed of the more than five hundred pages comprised in this volume. They will find there a complete record of educational progress for the year throughout the world. A large number of useful articles on methods of teaching, and not a few able papers pertaining to the science of education, have found publicity through our columns; a good proportion of which have been found sufficiently meritorious to warrant republication in our Eastern exchanges. Practical school-room work has not been neglected, and the JOURNAL, in many of our best-conducted schools, has been found of service as an aid to pupils.

It is not necessary for us to make promises for the future. The performance of the past six years is the best guerdon of merit and progress for time to come. In the general conduct of the magazine, the changes will all be in the direction of improvement.

During the coming year a number of new and attractive features will be introduced.

The scope of our periodical and the division of its work will be as follows:

First.—ARTICLES ON EDUCATION AS A SCIENCE; and on the ETHICS OF THE PROFESSION OF TEACHING.

Second.—PRACTICAL AND BRIEF ARTICLES ON METHODS OF TEACHING; and DAILY CLASS-ROOM WORK.

Third.—INFORMATION AND GENERAL CULTURE PAPERS—IN PROSE AND POETRY.

Fourth.—DEPARTMENT WORK, as follows:

Editorials on subjects of daily moment in educational work.

Official Department, giving decisions on matters of school law, etc., edited by State Superintendent W. T. Welcker.

Science Record, giving in outline a record of progress in scientific thought and discovery, edited by Principal J. B. McChesney.

Mathematics. This department will be revived under the editorial control of Professor William White.

Spelling Reform. This new department will be devoted to the advancement of a reform in our present absurd mode of spelling. Miss Kate Kennedy, of the North Cosmopolitan Grammar School, San Francisco, will have editorial charge.

The C. L. S. C. This department will be continued under Mrs. Mary H. Field, who has made it so attractive during the past year.

The Kindergarten, a new department devoted to the exposition of the principles and methods of the "New Education," will be maintained under the

editorial management of Mrs. Sarah B. Cooper, the eminent kindergarten superintendent.

The Pupils' Corner. This department, which is growing rapidly in popularity, will be under the management of Mrs. Alice Lyser. For the coming year it will include a number of original contributions.

Examinations. This new department will include questions for examinations of teachers, and others suitable for use in the daily work of the school-room. Answers to questions will also be given, and considerable space devoted to the discussion of principles. The department will be under the editorial charge of Joseph O'Connor, deputy superintendent elect of San Francisco.

News Department. This department will contain, first, a carefully kept record of the general news of the world; second, a condensed record of educational progress in the United States and Europe; third, educational intelligence from the Pacific Coast States.

Book Department. This department will present the names and price list of new books as they appear, a brief but comprehensive review of their objects and contents, and a monthly notice of the best magazine literature of our country.

THE OLD AND THE NEW.

ALMOST with the issue of this number of the JOURNAL, the administration of Hon. Fred. M. Campbell, as State Superintendent of Public Instruction, comes to an end, and Prof. W. T. Welcker enters on the duties of that high position.

To say that Mr. Campbell has made an excellent superintendent is but cold praise; to say that, with the solitary exception of John Swett, no man has administered the duties of the office with equal efficiency, barely does him justice.

To organize a new governmental system, whether of finance, or law, or education, has always required abilities of the highest order. But the work laid out for Mr. Campbell's administration was more difficult than even this, demanding more tact, a finer judgment, a nicer discrimination of what might be retained from the old system, and what best omitted.

Supt. Campbell, during his entire connection with the supervision of our schools, whether in Oakland or throughout the State, has gained in a pre-eminent degree the reputation of being a friend to the teachers. But this friendship has not been at the expense of the children in the schools. On the contrary, he was the friend of teachers in that elevated sense which means that as good teachers form the essential part of good schools, so he, by encouraging and sustaining and advancing the most worthy instructors, fostered the highest interests of the educational system of our country.

In his retirement from public life, Supt. Campbell will be followed by the gratitude of the people of California. He leaves warm and lasting friends in every rank and condition of life. Among our teachers, our school officers, and the masses of the people, he goes followed by universal good wishes for a continued career of success and usefulness.

The people of the State, fortunate in having F. M. Campbell to direct and conserve their educational interests at a critical period, are equally fortunate in his successor, Prof. W. T. Welcker.

In our October number we gave a sketch of Prof. Welcker's training and life work. With a useful and distinguished career behind him, he enters on the superintendency with a deep appreciation of its high responsibility, and an earnest determination that progress shall continue to be the watch-word in the administration of our educational interests.

REMOVAL.

A S will be seen from our title-page, the office of the JOURNAL has been removed to 806 Market street, room 45. Our new office is in the "Phelan Building," the finest structure on the Pacific coast. These offices are much more commodious and elegant than the old, and here we shall welcome very cordially all our superintendents and teachers—our friends from every part of the coast.

BOOK NOTICES.

OWING to the large amount of other matter necessary to publish in the concluding number of this volume, we are obliged to omit reviews of books, the receipt of which was acknowledged last month. The books to which we hope in our next number to direct especial attention are, Prof. Schuyler's "Psychology" (Van Antwerp, Bragg & Co.); Supt. Powell's "How to Write" (Cowperthwait & Co.); Prof. Gage's "Natural Philosophy" (Ginn, Heath & Co.); and several good books from the press of Houghton, Mifflin & Co., which are fully described in their advertisement in this number.

The January number, which will contain full reviews, is probably a more appropriate and timely issue for these notices than is this last number of the year.

OFFICIAL DEPARTMENT.

SUPERINTENDENT FREDERICK M. CAMPBELL, EDITOR.

SACRAMENTO, December 4th, 1882.

In accordance with subdivision 14 of section 1532, Political Code, the Second Biennial Convention of County Superintendents is hereby called to assemble at Young Men's Christian Association Hall, Sutter street, San Francisco, on Wednesday, December 27th, 1882, at 11 o'clock A. M.

FRED. M. CAMPBELL,
Superintendent Public Instruction.

In view of my early retirement from office, it is proper for me to say here that the foregoing call is issued at this time, only after consultation with my worthy successor, Prof. W. T. Welcker—indeed, at his request.

The possibilities for usefulness of a meeting at this time, by reason of the near approach of a biennial session of the Legislature, and the beginning of a new administration of the school department, must be apparent, and a full attendance is therefore most earnestly requested.

A cordial invitation is hereby extended to the newly elected county superintendents to be present to take part in the proceedings. An early personal acquaintance and conference with the State Superintendent with whom they are to co-operate during the next four years, and with the county superintendents from other counties, can but prove advantageous to all concerned and to the cause.

FRED. M. CAMPBELL.

GRADUATES OF THE SAN FRANCISCO NORMAL SCHOOL.—

December 10th, 1882.

HON. FRED. M. CAMPBELL—*Dear Sir:* I see in a letter to a lady of this county, you say that you do not know of a county in the State that refuses to recognize diplomas of graduation from the Normal Class of the Girls' High School of San Francisco. By what authority do they recognize them? Do the counties of Sacramento, San Joaquin, and San Francisco recognize them?

In behalf of the board of education of

County, I am yours, etc.,

SACRAMENTO, December 15th, 1882.

DEAR SIR—In reply to yours of the 10th inst. now before me, I have to repeat to you what you saw “in a letter to a lady of this [your] county,” that “I do not know of a county that refuses to recognize diplomas of graduation from the San Francisco Normal School. In the October number of the SCHOOL JOURNAL, Official Department, you will find a brief item on this subject. The authority for recognizing these diplomas is found in section 1775, and the section is worded as it is (I myself wrote it) for the especial purpose of allowing those diplomas to be recognized. While in regard to normal schools of other States than California the words “State Normal Schools” are used in regard to California Normal Schools, the word *State* is omitted. Knowing as I do the standing required for admission to that school, and the kind of training its students receive, and the kind of people who give the training, and, moreover, believing as I do that a person to be put in charge of one of our schools should have had either successful experience elsewhere or professional training, I felt I was doing a good thing for the schools of California in allowing a larger supply of the last than the State Normal School can yet furnish; and I feel so now. I do not know of a single graduate of the State Normal School out of employment; the demand for trained teachers is urgent. I am, very truly yours,

FRED. M. CAMPBELL,

Superintendent Public Instruction.

KIND words are the bright flowers of earthly existence; use them, and especially around the fireside circle. They are the jewels beyond price, and powerful to heal the wounded heart and make the weighed-down spirit glad.

COUNTY SUPERINTENDENTS ELECTED NOVEMBER 7, 1882,
TO SERVE FOR FOUR YEARS FROM JANUARY, 1883.

County.	Name.	Post-office Address.
Alameda.....	P. M. Fisher.....	Washington Corners.
Alpine.....		
Amador.....	J. F. Chandler.....	Sutter Creek.
Butte.....	D. W. Braddock.....	Oroville.
Contra Costa.....	A. A. Bailey*.....	Martinez.
Calaveras.....	C. R. Beal.....	San Andreas.
Colusa.....	J. L. Wilson.....	Colusa.
Del Norte.....	W. H. Jeter.....	Crescent City.
El Dorado.....	Charles E. Markham*.....	Placerville.
Fresno.....	B. A. Hawkins.....	Fresno City.
Humboldt.....	N. S. Phelps.....	Ferndale.
Inyo.....	Charles S. Groves.....	Independence.
Kern.....	A. B. Macpherson.....	Bakersfield.
Lake.....	Mack Mathews†.....	Lakeport.
Lassen.....	E. A. Williams.....	Susanville.
Los Angeles.....	J. W. Hinton*.....	Los Angeles.
Marin.....	A. E. Kellogg.....	San Rafael.
Mariposa.....	W. D. Egenhoff†.....	Hornitos.
Mendocino.....	John C. Ruddock*.....	Ukiah.
Merced.....	E. T. Dixon*.....	Merced.
Modoc.....	Mrs. Alice Welch.....	Alturas.
Mono.....	Miss Naomi Angell.....	Bodie.
Monterey.....	M. J. Smeltzer.....	Salinas City.
Napa.....	J. L. Shearer.....	Napa City.
Nevada.....	A. J. Tiffany.....	French Corral.
Placer.....	O. F. Seavey*.....	Auburn
Plumas.....	George E. Houghton.....	Quincy.
Sacramento.....	C. E. Bishop*.....	Sacramento.
San Bernardino.....	H. C. Brooke.....	San Bernardino.
San Benito.....	I. N. Thompson*.....	Hollister.
San Diego.....	R. D. Butler.....	San Diego.
San Francisco.....	Andrew J. Moulder.....	San Francisco.
San Joaquin.....	S. G. S. Dunbar.....	Stockton.
San Luis Obispo.....	J. M. Felts.....	San Luis Obispo.
San Mateo.....	G. P. Hartley†.....	Redwood City.
Santa Barbara.....	G. E. Thurmond†.....	Carpenteria.
Santa Clara.....	L. J. Chipman†.....	San Jose.
Santa Cruz.....	J. W. Linscott.....	Watsonville.
Shasta.....	Mrs. D. M. Coleman†.....	Shasta
Sierra.....	J. S. Wixson†.....	Downieville.
Siskiyou.....	H. A. Morse*.....	Yreka.
Solano.....	C. B. Webster.....	Fairfield.
Sonoma.....	C. S. Smyth*.....	Santa Rosa.
Stanislaus.....	W. S. Chase.....	Modesto.
Sutter.....	M. C. Clark.....	Yuba City.
Tehama.....	Myron Yager*.....	Red Bluff.
Trinity.....	H. R. Given.....	Weaverville.
Tulare.....	C. H. Murphy.....	Visalia.
Tuolumne.....	John T. Murnan.....	Sonora.
Ventura.....	D. M. Meredith.....	San Buenaventura.
Yolo.....	J. W. Goin*.....	Woodland.
Yuba.....	H. C. Babcock.....	Marysville.

* Re-elected.

† Third term.

‡ Fourth term.

OUR lives are like some complicated machine, working on one side of a wall, and delivering the finished fabric on the other. We cannot cross the barrier and see the end. The work is in our hands; the completion is not.

SCIENCE RECORD.

THIS RECORD is under the editorial charge of Prof. J. B. MCCHESNEY, to whom all communications in reference thereto must be addressed.

THE London *Medical Journal* gives reports from various practitioners who have found purgative results following the inunction of castor oil. One writer states that he has frequently applied this oil to the abdomen, under spongiopiline, or other waterproof material, in cases where the usual way of administering by the mouth seemed undesirable, and with the most satisfactory consequences. In a case of typhoid fever, also, half an ounce of castor oil was applied in this manner, under a hot-water fomentation, the effect of this being, as represented, to relieve the constipation and tympanitic distention that had been present, without undue purging or irritation of the bowels.

AN IMPORTANT and useful invention is a method for keeping coffee, tea, chocolate, and other kinds of food hot from one to twenty hours, the quality of the articles preserved being unchanged. No artificial heat is used in the process, and its practicability was demonstrated Thanksgiving Day by A. L. Moffitt, formerly of this city, and a member of the Boston Hot Coffee and Tea Company, which has control of the invention. A ten-gallon tank of hot coffee made at 6 A. M. was shipped from Boston at 7 A. M., and was served to the Evans House guests at dinner at 3 P. M. The coffee was of excellent quality, and as hot as if it had just come from the fire; at 10 P. M. the temperature was a little changed, and at 10 A. M. the next day, twenty-eight hours after the coffee was made, it was still warm enough to be a pleasant drink. The project has been brought to the attention of Governor Long and the Boston Temperance Committee, and upon it was based the recent coffee temperance movement in Boston. The Hot Coffee and Tea Company are not connected with the temperance cause, but their tanks could probably be introduced to advantage in coffee-houses. The company use Cedar Park mineral spring water in making their coffee, and propose to supply caterers, societies, public dinner parties, etc., within the twenty-hour circuit of Boston. The tank brought here was a neatly constructed wooden affair, about twenty-eight inches high, sixteen inches in diameter at the bottom and a little smaller at the top, and looked somewhat like a barrel.—*Boston Transcript*.

A NEW THEORY OF COMBUSTION.—The Society of Chemical Industry, although less than a year old, is an infant of much promise, and some sensation was made at the meeting at Owens College last month by Thomas Fletcher's new theory of combustion. The belief has often been stated that if it were possible to produce combustion without flame, the temperature attained by the consumption of any fuel could be enormously increased, and it seems that Mr. Fletcher has now proved that it is possible. Directing an ordinary blow-pipe flame upon a ball of iron wire weighing some three pounds, Mr. Fletcher, after a few moments, blew it out. The temperature immediately rose until the iron was fused like wax, and was steadily maintained. Of this experiment we are told that "the room was darkened, but the closest examination did not show a trace of flame, although the fact that the gas was burning was proved by relighting and extinguishing it." This flameless heat was then directed into a fire-clay chamber containing a "refractory" clay crucible, which was "partially fused and worked into a ball like soft putty," while the walls of fire-clay were at the same time fused by what may well be called latent heat. It is quite clear that no such results have been before obtained by similar means. The gas supply used was given by a quarter-inch pipe; and from Mr. Fletcher's experiments, it appears that the presence of flame is not really a sign of perfect but of imperfect combustion, and that far greater results can be obtained in its absence. Whether the discovery can be utilized in practice or not remains to be seen; but it is something to have demonstrated the possibility of absolutely flameless and at the same time perfect combustion.—*St. James' Gazette*.

COUNTY INSTITUTES.

STATE OF NEVADA.

The Nevada State Teachers' Institute convened in Reno, October 27th, and continued in session four days. Seven counties were represented by the leading teachers of the State. Supt. Bowen of Washoe County presided, and Prof. Howe of Carson City was elected secretary. Papers were read by Supt. Bowen, Miss Ella McNeely, Rev. George W. James, Supt. C. S. Young, Mrs. H. M. Schofield, and others. An active and leading part was taken in the discussions of the institute by Prof. Howe, Rev. A. B. Palmer, Prof. Carr, and others. Mr. James's papers on the Tonic Sol-fa System of Teaching Music, and on Mnemonics, attracted great attention and aroused considerable interest.

The editor of the JOURNAL attended the sessions of the institute, and participated in the proceedings. His remarks and illustrations on the teaching of the English language gave rise to animated discussions.

Evening addresses were delivered by Mr. Lyser; on Education, by Rev. W. R. Jeny (a very able address); and an interesting lecture, illustrated by sciopticon views, by the Rev. Mr. James. The music furnished by Miss Wilsey of Carson, and some of the ladies and gentlemen of Reno, and by the young ladies of the Bishop Whitaker Academy, was of the highest order. At the conclusion of the institute, a professional organization was effected under the name of the Nevada State Teachers' Association.

Nevada treats her teachers with great liberality. Salaries are higher there than in any other State in the Union, and for equal services men and women are paid alike. In consequence, some of the ablest teachers on the Pacific coast have made Nevada their home. The Carson City schools, under the supervision of Prof. Howe, assisted by a corps of faithful, intelligent teachers, are in excellent condition, doing work not inferior to the best California schools.

The editor of the JOURNAL made a thorough tour of inspection through the schools of Gold Hill and Virginia City, and reports as follows :

The Gold Hill schools, which have had the advantage of Supt. C. S. Young's management, we found a model school. The writer, who in a recent number of the JOURNAL deplored his inability to find the Quincy system anywhere on the Pacific coast, would be satisfied here. In the best kind of discipline; in pleasant, neat surroundings; in teaching, which is not cramming but training—this Gold Hill school is an honor to the city which sustains it, and a credit to the teachers who have made it what it is.

Among its teachers all picked and trained, we found Mrs. C. H. Swift, Prof. Young's head assistant in the high-school department, a lady of broad and accurate scholarship, and in the highest sense a teacher. One of the finest primary teachers it has ever been our lot to meet was found here in Miss Henderson, who, in a room furnished with all the appliances of the "Quincy Methods," and aided by a young lady who is fortunate in having such an example before her, teaches sixty little ones in a manner that lays deep and strong the foundations of a true education.

Accompanied by Mr. Meadows, a member of the board of education, and a courteous and painstaking gentleman, the Virginia schools were visited. Comparisons are proverbially invidious, but we must say that the Virginia City schools did not show the same care, foresight, and efficiency in control as characterize those of Gold Hill. Ventilation and neatness of surroundings are not as carefully looked after, the discipline is not as good, nor are the methods generally as modern. To this there are exceptions, of course. Prof. T. B. Gray, of the high school, we found an excellent teacher, of culture and experience. His school, the best in Virginia City, is orderly, well managed, and contains some fine teachers.

In Mr. Booher's school we found some good instructors, notably Miss Michelson.

The election of Prof. Gray to the city superintendency will, we are confident, exert a decided influence for the improvement of the department. The people of the whole State of Nevada are to be especially congratulated in the election of Prof. C. S. Young to the State superintendency. What he has done for the Gold Hill schools, he will undoubtedly endeavor to effect for the system of the entire State.

PLACER COUNTY.

The Placer County Teachers' Institute convened at 9 o'clock A. M., November 23rd, in Auburn, Supt. Seavey presiding. Mr. W. H. Carter illustrated Proportion. By request Mr. Firehammer explained the principles of Cancellation. Mr. Wyllie gave his idea of Grammar for intermediate grades. Miss Horrow read an essay on School Progress, and Miss Carns spoke of teaching Geography to beginners. Miss Seathers and others gave their experience. G. W. Fuller read an essay on Reading. The great advantages of the Quincy system was explained by Miss J. N. Norris. Phonetics was ably discussed by Mr. Firehammer, and Mr. Richmond discussed History. Physical Geography, the discussion of which was participated in by several teachers, was introduced by Mr. Burns. Descriptive Geography was spoken of by Mr. Firehammer. Reading in the grammar grades was the subject of a pleasant talk by Mr. Burns, and Miss Maggie Barrett read a paper on Primary Language Lessons. Another admirable essay, Who shall Teach the Children? was read by Miss Delia Manning. After a few interesting remarks on Map Drawing by Mr. Drew, Miss Etheo Simms read an essay on Education and the Best Way to Impart it. Mr. Carlin read an essay on the Aims of Education, after which Messrs. Sutphen and Ward were introduced, and made telling remarks. A reading, The School-master's Guests, by Miss Horrow, was much enjoyed. Miss J. A. Norris discussed Free-hand Drawing, and Mr. T. S. Herbert explained the Vocal Music in the School-room.

ALAMEDA COUNTY.

Wednesday morning, November 8th, the Alameda County Teachers' Institute convened in the Independent Church, Oakland. There were about 240 teachers in attendance. Supt. Fuller presided, and O. S. Ingham of Alameda was elected vice-president. The programme was opened by music by the eighth-grade class of the Prescott School, followed by an interesting address by Supt. Fuller, on Teachers' Work and Wages. A paper on Language and Grammar was read by J. H. Eikhoff, of the Alameda High School, which drew forth an interesting discussion, participated in by Messrs. Keep, Anderson, Galbraith, and J. D. Sullivan. In the afternoon J. C. Gilson, city superintendent, read a valuable paper on Geography. In the evening the Rev. C. C. Stratton lectured on The Practical Advantages of a Higher Education, and by a variety of apt illustrations showed the value of such education in the practical things of life.

Thursday the Oakland teachers visited the schools of San Francisco, and the county teachers by invitation examined the Institute for the Deaf, Dumb, and Blind.

Thursday evening Dr. Horatio Stebbins delivered an address, Beware how you Excite Expectations which you cannot Fulfill.

On Friday essays were read by Mrs. Hinckley of Oakland, Mrs. Horton, and Mr. C. V. Osborn. The institute closed with "a social" on Friday evening.

TEHAMA COUNTY.

The annual institute of this county was convened in Red Bluff, November 13th, by Supt. Myron Yager, the session continuing the entire week. In the character of its schools, the high standard required for the certificates of its teachers, and their general efficiency, Tehama is one of the banner counties of the State. This high position is largely due to the admirable management of Supt. Yager, ably seconded by his board of education. The board consists of Prof. E. S. Gans, principal of the Red Bluff Academy, one of the finest private schools on this coast; Prof. A. W. McCoy, now retired from the

profession, of which a few years ago he was a leading member in northern California; Ex-Supt. E. S. Campbell, now county clerk of Tehama; and Supervisor Gates.

The editor of the JOURNAL had the pleasure of visiting some of the schools of Tehama County, and his observations in Red Bluff gave him a highly favorable impression of their efficiency. Red Bluff is fortunate in both private and public institutions of learning. The public schools, under the principalship of Prof. O. E. Graves, are among the finest schools ever examined by the writer, and will compare favorably in discipline and scholastic work with the best in San Francisco and Oakland. The people of Red Bluff need no compliments on their intelligence and enterprise. When we say that they pay Prof. Graves \$160 per month to conduct their schools, and the lowest primary teacher the same salary as the first grammar—i. e., \$90 per month—enough is said. Among Prof. Graves's teachers, we must name his lowest primary teacher, Miss Vickers, a lady of more than usual skill, ability, and adaptation to primary work; and Misses Moote, Robinson, and Prior, eminently competent in the grammar departments.

The academy, under the skillful management of Prof. Gans, a gentleman of culture and tact, assisted by Prof. Crawford, is a flourishing school, noted for the thorough scholarship of its graduates.

The institute was opened by Supt. Yager with an excellent address, descriptive of the progress and condition of the schools of the county. Extracts from his address will appear in our January number. Profs. More of the Normal and Lyser of the JOURNAL were present during the week, assisted at the day sessions, and lectured in the evening.

Papers were read or methods discussed by Mr. C. H. Stout (one of the best teachers in this part of the State), Prof. O. E. Graves, Prof. E. S. Gans, Profs. Crawford and McCoy. After passing a resolution that the next session should be strictly normal, the institute adjourned.

SHASTA COUNTY.

The teachers of this county convened, in accordance with the call of Supt. D. M. Coleman, at Shasta, Tuesday, November 28th. Mr. C. E. Parkinson was elected vice-president; Mr. Gibbs, secretary; and Miss Cadwell, assistant secretary.

Though Shasta is one of the roughest (geographically) and largest counties in the State, the attendance included nearly all the teachers actively engaged in work. The JOURNAL has had frequent occasion to commend Mrs. Coleman's work as superintendent of this county. The institute showed us that she has succeeded in retaining in Shasta a large proportion of highly competent teachers. Prof. More, of the Normal, and Mr. Lyser, of the JOURNAL, attended and assisted in both day and evening sessions. Among the more prominent teachers are Mr. C. M. Kellogg, principal of the Redding schools, an able and progressive man, and a thoroughly trained teacher. A paper on Normal Methods read by him before the institute was replete with practical suggestions. He is a graduate of our State Normal School, and a credit to his *Alma Mater*. His first assistant, Mr. Reed, a young man of industry and great promise, read two papers, On the Teaching of United States History, and Local Geography. Both were well written and fully in accord with modern ideas and methods.

A fine paper on Elocution, or rather, the teaching of Reading, was read by Miss Bertha Collins, a graduate of the Pennsylvania State Normal School (Millersville). Miss Collins showed a full mastery of her subject, and illustrated her methods and their results by some finely rendered recitations during the sessions of the institute.

Among others, Mrs. E. P. Veeder of Copper City, Prof. Howe, Mr. Berger, Miss Cora O. Smith—the bright and popular teacher in the primary department at Shasta—Mr. C. E. Parkinson, are especially noted for the efficient character of their school work, and the general success of their schools. Mrs. Veeder, Prof. Howe, and Mr. Parkinson took an active part in the proceedings of the institute, though all the teachers displayed a deep interest in the work, and participated in it with enthusiasm.

MARIPOSA COUNTY.

The Mariposa County Institute convened at the Court-house, November 2nd, 1882, Supt. Egenhoff presiding. Miss Mary Rowland was chosen secretary, and Miss Anna Robinson, assistant secretary. There being no regular programme, after the appointment of the regular committees the institute proceeded to discuss the ordinary topics ; such as History, Alphabet Teaching, Manners and Morals, Corporal Punishment, etc. Mr. Titchworth would not whip under any circumstances ; Mr. Converse would make no threats or promises, but if necessary at any time would administer whatever chastisement he deemed appropriate ; Mr. Egenhoff placed himself squarely on record in favor of using the rod. Several addresses were delivered, and some very interesting essays read. Among the former were those of Messrs. Adair and Converse. Of the latter, those read by Mrs. Annie Green, on Books ; Miss Anna Robinson, on Music ; Mr. J. B. Wilkinson, on Teaching ; Mr. W. D. Egenhoff, on School Government ; Mr. J. C. Titchworth, on Morals ; Primary Reading, Miss Mary Kerrins—were interesting and instructive.

The institute adjourned on Saturday, November 4th, after a three days' session.

YOLO COUNTY.

The annual session of the Teachers' Institute of Yolo County convened in the Baptist Church, Woodland, at 10 A. M., November 15th, 1882. The county superintendent, Mr. Jno. W. Goin, presided, and James R. Shelton acted as secretary. The following committees were announced : Resolutions, J. I. McConnell, J. H. Whittmore, and Miss Rossa Kelly ; reception, Peter Larew and A. E. Hiddleston ; introduction, Miss Katie B. Fisher, Miss Minnie De Long, and J. R. Shelton.

The programme, which had been previously prepared and printed, was, with a few changes, followed at the day sessions. It is as follows : Reading in Primary Grades, Mrs. H. W. Dexter ; Reading in Grammar Grades, Miss S. E. Lowe ; Geography, Miss A. V. Peterson ; History, James F. Duncan ; Methods of Teaching Music, Miss C. A. Cole ; Mental Arithmetic, Charles B. Crane ; Primary Arithmetic, J. H. Whittmore ; Fractions and Percentage, T. J. Tooley ; Spelling, Miss Etta Kise ; Physics, M. V. Chapman ; Penmanship and Drawing, James M. Mann ; Language in Primary Grades, E. W. Spring ; Grammar and Composition, Wm. H. Cook ; Physiology and Hygiene, T. S. Knauer ; Horace Mann, lecture by Prof. A. L. Mann.

The subjects were well presented, and generally discussed by the teachers. Prof. F. A. Peddlar of the board of education, Profs. Martin and Grant of Hesperian College, Messrs. Cosgrove and Ginn, and Profs. Jos. Leggett and A. L. Mann of San Francisco, added interest to the exercises by their remarks.

The evening sessions were devoted principally to lectures delivered to large and appreciative audiences. Prof. Leggett's lecture—Rational Method of Teaching English—was well received on Wednesday evening. On Thursday evening Longfellow was ably handled by Prof. A. L. Mann. Supt. Campbell arrived on Friday night, and lectured to a large audience. Good music, rendered by the musical talent of Woodland and vicinity, was an important feature of the evening sessions. It was resolved that applicants for teachers' certificates should possess a thorough knowledge of the school law, and that the language reform of Prof. Leggett meets the hearty approval of the teachers. Thanks were tendered our able and efficient superintendent. Of the sixty-four teachers enrolled, sixty-three were in attendance, and twenty-four attended for the first time a teachers' institute in Yolo County.

"A PRUDENT man," says a witty Frenchman, "is like a pin. His head prevents him from going too far."

OFFICIAL DEPARTMENT.—(SUPPLEMENTAL.)

VALEDICTORY.

With this number of the JOURNAL my editorship of this department ends; and I now take leave of those with whom I have communicated through these pages during three years—the superintendents, school officers, and teachers of the State.

To deny or attempt to conceal the honest truth—that I regret our present relations are not to continue longer—would be weak affectation on my part. Equally so would it be if I did not confess to something of satisfaction in the retrospect of my brief administration.

I am glad to have been the chief executive officer of the school department of the State during a most important and critical period of its history, and to have contributed in any measure to its present splendid condition of prosperity, efficiency, and usefulness.

During the three years of official intercourse with you, my co-laborers, friendships have been formed which will not end with my term of office. Indeed, our relations are not severed, they are only changed; for as a boy I enlisted in this educational army for the whole war, and so somewhere, in some capacity, I shall be of you and with you; if not as an officer, why, then in the ranks. It is therefore in my present capacity only that I take leave of you, wishing you, most cordially and heartily, A MERRY CHRISTMAS, AND A HAPPY NEW-YEAR.

FRED. M. CAMPBELL,

Superintendent Public Instruction.

MEETING OF THE STATE BOARD OF EDUCATION.—A meeting of the State Board of Education was held on Saturday, December 16th, 1882.

Life and educational diplomas were issued to those whose names are given farther on. Several applications and recommendations could not be acted upon, because it was found necessary under the rules of the board to return them for correction, or for additional requisite data. In two cases the name appeared upon the recommendation, the accompanying certificate, and signed to a personal letter, each in a form differing from the others. In some cases nothing was found on the back of the certificate to indicate upon what it had been issued. Two or three were laid over from other causes for consideration at the next meeting of the board.

SPECIAL NOTICE.—For the accommodation of those whose diplomas have been thus delayed, as well as of those who shall be recommended by the large number of county boards that hold meetings this month (December), the board adjourned, to meet on Saturday, December 30th, 1882. The following notice has accordingly been sent to each county and city superintendent:

“That the work of the year and of this administration may all be completed and closed up, a final meeting of the State Board of Education will be held on Saturday, December 30th, 1882. That there may be no unnecessary delay, please forward promptly any business you may have to present; and in the matter of applications for diplomas, observe carefully the suggestions given in the Official Department of the JOURNAL for May, 1882.”

The “suggestions” referred to are reprinted from the May JOURNAL, as follows:

“STATE DIPLOMAS.—Will county superintendents please observe in recommending for State Diplomas—

“1. That for each person recommended a separate resolution-blank must be filled out.

“2. That the name must appear upon the recommendation *exactly* as it is desired to have it appear upon the diploma.

“3. That the recommendation must bear the seal of the county board.

"4. That the certificate upon which the diploma is asked must accompany the application.

"5. That the full *first* name of the applicant must be given; e. g., *Mary E. Smith*, not *M. E. Smith*.

"6. In the case of married ladies, the wife's *own* first name should be given, and not the husband's; e. g., *Mrs. Mary E. Smith*, and not *Mrs. John H. Smith*.

"The diploma is intended for no other than this identical Mrs. Smith, and not for future use in the family in case of accident."

The following Life Diplomas were issued December 16th, 1882:

Mrs. Lizzie L. Orr, Colusa Co.	Nellie A. Littlefield, San Francisco.
Mrs. Sabra S. Brite, Contra Costa Co.	Mrs. S. Jennie Mann, "
Mrs. Lette M. G. Worth, El Dorado Co.	Matilda E. Moore, "
Mary A. Carr, Humboldt Co.	Belle McNicholl, "
James A. Fike, "	Abbie F. Sprague, "
Kate Fleming, "	Maggie Sprott, "
Fred. H. Gibson, "	Mrs. Mamie S. Wright, "
Eliz. J. McMeekan, "	Jane Arnett, San Joaquin Co.
Lydia M. Cheney, Napa Co.	Elma J. Carter, "
Aggie Farrell, Nevada Co.	Hersalora C. Goodspeed, "
Chas. H. Converse, Mariposa Co.	May E. Hyde, "
Jas. McGoun Cleland, Mendocino Co.	Nettie S. Nichols, "
Mrs. Julia F. Bugbey, Sacramento Co.	Carlton M. Ritter, "
Edith J. Martin, San Bernardino Co.	Frank P. Russell, "
Mrs. Augusta J. Dunlap, "	Mary L. Wright, "
Anne E. Benson, San Francisco.	Mary Bird, Santa Clara Co.
Vesta E. Bradbury, "	Burton L. Bostwick, Siskiyou Co.
Mary J. Canham, "	Sam'l D. Bristow, Solano Co.
Mary E. Collins, "	Mrs. Margt. N. Stinson, Stanislaus Co.
May Duraind, "	Byron J. Tunnell, Tuolumne Co.
Susie H. Earle, "	Geo. H. Stout, Tehama Co.
Pauline Langstader, "	Mrs. Caroline Price Sprague, Duplicate.
Emily U. Lindberg, "	

The following Educational Diplomas were issued December 16th, 1882:

George E. Root, Alameda Co.	Susie H. Earle, San Francisco.
Mrs. Kate M. Wilkins, Colusa Co.	Cora A. Glidden, "
Lizzie Brady, Del Norte Co.	Addie J. Gracier, "
Louis Hulett Valentine, El Dorado Co.	Annie M. Kean, "
Lewis M. Burnell, Humboldt Co.	Blanche L. Lalande, "
Mary A. Carr, "	Julia Lewis, "
Walter H. Clark, "	Nellie A. Littlefield, "
Alfred H. Day, "	Nellie F. McFarland, "
James A. Fike, "	Belle McNicholl, "
Eliz. J. McMeekan, "	Jessie R. Patton, "
Arthur Mock, "	Rose S. Parker, "
Fred. W. Stowell, "	Mrs. Annie E. Peck, "
Althea Sprague, "	Annie E. Pike, "
Mrs. Belle S. Cromwell, Lassen Co.	Abbie F. Sprague, "
Joseph B. Wilkinson, Mariposa Co.	Belle M. Stanford, "
Mrs. Lizzie McBride, Placer Co.	Cassie L. Sweeney, "
Adelaide Boschen, San Joaquin Co.	Nettie Wade, "
Louisa Cahill, "	Mrs. M. J. Greenman, San Joaquin Co.
Mary A. Harkness, "	F. Josephine Jacobson, "
Charles L. Neill, "	John Lane, "
Mrs. Phebe C. Noyes, "	Hattie A. Leadbetter, "
Philip Dippel, Sacramento Co.	Will C. Ramsey, "
Nellie Haskell, "	May L. Crittenden, Santa Clara Co.
Belle Henly, "	Frank R. Love, Shasta Co.
Chas. S. Panabaker, "	Chas. E. Parkinson, "
Mrs. Mattie J. Cronemiller, Sac. City.	Chas. A. Currier, Stanislaus Co.
Irene Richardson, Sacramento Co.	Mrs. Lizzie Williams Stout, Tehama Co.
Minnie Sweeney, "	John Tatham, "
Mary Batten, San Francisco.	Emma Shelly, "
Bertha Block, "	Mrs. Ella A. Coul, Yuba Co.
Tannie E. Coleman, "	Gordon Benson, "
Mary E. Collins, "	Etta M. Tilton, Renewed.

NEWS RECORD.

Foreign and Domestic.

TUNIS.—France, by a treaty with the Bey, assumes control of Tunis, both financially and otherwise, the Bey retiring to private life on an allowance.

ASIA.—Excitement and disturbances prevail in Afghanistan because the Ameer deposed the governor of Herat, and appointed his (the Ameer's) son to the position. The inhabitants of the Kabul region have revolted and murdered their governor.

The town of Manilla, Philippine Islands, has been visited by a terrible cyclone, destroying numerous dwellings, and wrecking shipping to a great extent.

The elections on Tuesday, Nov. 7th, resulted in a general victory for the Democrats, who carried New York, Pennsylvania, Massachusetts, Connecticut, Delaware, Arkansas, Texas and California. Such a "clean sweep" was altogether unlooked for. It far surpasses the so-called "tidal wave" of 1874.

In New York, Grover Cleveland, the Democratic candidate for Governor, was elected by a majority of nearly 200,000, by far the largest majority ever given a candidate in any State in the Union.

General B. F. Butler has been elected Governor of Massachusetts by a majority of some 10,000. His council and legislature are Republican.

Pattison, the Democratic candidate for Governor in Pennsylvania, was elected by a plurality of 36,000 over both the Independent and the Republican candidates.

Of fifteen States that voted for Governor, thirteen elected Democrats. Of the next Congress, 199 members will be Democrats, 122 Republicans, and 4 Independents.

Thurlow Weed, the politician, and John W. Draper, eminent as a scientist, are dead.

Egypt.—The Egyptian Public Prosecutor has summarized and submitted to the Khedive the charges against Arabi, and they have been approved. After an impartial trial he was found guilty of treason and condemned to perpetual exile. The Isle of Ceylon has been chosen as his prison.

Mr. Gladstone has declared in the House of Commons that it was necessary that 12,000 British troops remain in Egypt for the present, and in a short time a treaty would be made with Egypt, one clause of which would provide that the cost of the maintenance of this army would be defrayed by England. Lord Granville has assured the French government that the French control in Egypt will be continued in a position to examine the finances.

Debate in the British Parliament has, ac-

cording to the ministerial programme, related chiefly to the proposed change in the rules of procedure. The question of applying the *closure* of debate by a simple majority vote has sharply divided the House, the Conservatives opposing strenuously. The Irish home rulers having, however, generally voted with the government, according to the policy adopted at their caucus meeting. The ministry has been questioned with regard to the future occupation of Egypt, a point on which they are evidently reluctant to commit themselves. Secretary for Ireland Trevelyan has been interrogated with regard to distress in Ireland, and replying said that the reports of distress and imminent danger of famine in the west of Ireland were greatly exaggerated. He had communicated with the Irish local Government Board, who said that they had no reason to apprehend any distress, and had heard nothing of it from inspectors.

The continuance of heavy rains in the Thames valley, England, has caused inundations in every direction. At Hampton the villas are only to be approached by boats. The suburbs of Windsor, Eaton, and Staines are flooded. Somerset, Lincoln, and midland counties are inundated, and railway traffic largely suspended. The damage done to property is immense, and much suffering is sure to result.

Floods and storms have prevailed to such an extent that wheat sowing has been greatly retarded, and next year's crops may be much reduced. Sections of Warwickshire, Cheshire, and Somersetshire, through which runs the Exeter Canal, have been inundated by a break in its banks. Severe snowstorms and floods have also caused much damage in North Wales.

Rains in southern France, in the vicinity of Mentone, have occasioned damages estimated at three millions of francs. The French foreign office has submitted a convention recognizing the suzerainty of France over the island of Madagascar to M. Malagasy, the envoy of that country, who has referred to his government for instructions.

A coalition party is being formed in France, of which Gambetta, Duclerc, and Ferry are leaders, whose policy will be anti-anarchist, and strongly antagonistic to English control in Egyptian affairs.

It is stated that the Delaware and Maryland ship canal will be completed without government aid, by European capitalists.

Russia is annoyed at Servia's friendship for Austria, and the Czar has failed to congratulate King Milan upon his escape from assassination. Great activity is manifested by Russia in its warlike preparations. Formidable fortifications are being constructed

near Grodna, and a well-equipped camp has been established on the right bank of the Bug. Great uneasiness prevails at the German and Austrian capitals.

SERVIA.—In the cathedral at Belgrade, on the 3rd, a woman fired twice at King Milan, who escaped injury. It appears that the King recently passed some time in Roumania in order to defeat a conspiracy against his life by blowing up his steamer with torpedoes.

Peace negotiations between Chili and Peru have fallen through, and Calderon has been imprisoned at Angel. The heavy war taxes imposed upon the people have caused much distress.

Educational.

Joseph Alden, LL. D., long prominent in educational work, has resigned the presidency of the State Normal School at Albany, N. Y., a position which he has occupied for fifteen years. He was for six years President of Jefferson College.

The course of study for the Kansas Normal Institute for 1882, issued by the State Board of Education, in some ways marks an era in this part of the educational work of the State. More attention is given to professional study than heretofore, thus counteracting the tendency to run into merely academic work, which has been their greatest fault in the past. As the conductors and instructors are pledged to follow this course of study, we may feel assured of a decided improvement in the results of these institutes. This is another step toward making teaching a profession in fact.—*The Present Age.*

Boston University will expend \$40,000 in remodeling the Somerset Street Church at Boston, and use it for the work of the schools of liberal art and theology, the other schools remaining at their old quarters.

Miss Louisa Howard, Burlington, Vt., has added to her liberal benefactions by giving to President Buckham, of the university in that city, \$5,000 to establish five scholarships, which must be assigned to Green Mountain boys of good minds, manners, and morals.

The elective system has just been adopted by the State University of South Carolina. The institution will furnish two literary and three scientific courses, together with special courses in agriculture, mechanics, and surveying, and in purely English studies. It will also presently arrange a normal course for teachers.

A prominent Southern paper says that Kentucky has no less than twenty universities and colleges, seven schools of medicine, six theological schools, two law schools, and one agricultural and mechanical college,

with several hundred grammar schools, academies, and colleges, each holding a high standard of education. There are 250,000 illiterates in the State.

The following description of the school system of Kansas City shows a city with well-developed and efficiently managed schools. The rate per cent. levied for school purposes is four mills on assessed valuation, which in so wealthy a burg as Kansas City constitutes a large fund. The city has 103 teachers in all its schools. It has 13 school-houses, which have a seating capacity of 6,400. During the year, 7,444 white and 978 colored children have been enrolled in the schools, and the average daily attendance has been 5,055. The average cost per day for tuition of each pupil on total enrollment, taking into account the expenses of the schools, is 47 cents, for which limited sum the rising generation receives the best quality of instruction that the public school system can offer. Kansas City teachers hold monthly institutes, which, no doubt, add greatly to their efficiency in their work.—*The Present Age.*

Hon. J. P. Slade, Superintendent of Public Instruction, has accepted the presidency of Almira College, Greenville. He has been offered a position in Shurtleff College, at Alton, and also the presidency of a college at Nashville, Tenn. Springfield people are very sorry to lose him.

H. M. James, one of the assistant superintendents of the Cleveland schools, has been elected Superintendent of Schools at Omaha, Neb., at a salary of \$3,000.

Reports of the opening of the new year at Dartmouth College do not give the number of freshmen, but all agree that the class is small. There should be no reason for this falling off from classes in old Dartmouth.

Columbia College, New York, is again in luck, having received a bequest of \$500,000, which raises its endowment fund to \$5,300,000, with an income of \$281,000. It instructs only 208 boys. No wonder President Barnard yearns to open the big doors for the admission of a thousand of the splendid New York girls, who are longing for just this opportunity. It is pretty well understood that the masculine undergraduate in the older Eastern universities is the sworn foe of co-education. But, to our mind, there is something not quite manly in 208 boys sitting down on an income of \$281,000, with the protest, "No girls admitted."—*N. E. Journal.*

Dr. Joseph W. Taylor, who died in 1880, left \$900,000 for an institution for the education of young women, near Bryn Mawr, Pa. It is not expected that the college will be opened before 1885. Mr. Taylor was an excellent member of the Society of Friends, and the institution will be under the general management of Orthodox Friends.

At the recent annual distribution of prizes at University College, London, the Earl of Kimberley, president of the college, remarked with pleasure upon the distinguished place which the women students had taken in the competition for prizes.

The seventh annual report of the Japanese Minister of Education states that there are 28,025 common schools in Japan, of which 16,710 are public, and the remainder private. The number of high schools is 107. Many kindergartens are established. The private schools play a most important part in Japanese national life and education. Many of them have hundreds of students, attracted by the fame of a single teacher.

Texas has sixteen normal institutes this summer, and the Legislature has appropriated \$4,000 to cover expenses. The cause of education in the Lone Star State is upward and progressive.

County school commissioners from different parts of Georgia are quoted as saying that the teachers who come from the two colored normal schools in Atlanta do the best teaching that is done in their counties.

Texas, which is said to have 50,000 acres of school land rapidly appreciating in value, is expected to have, in the not distant future, a school fund of \$250,000,000, a sum greater than the combined school fund of all the States.

Prof. Albert Salsbury, for the last nine years a teacher in the normal school at Whitewater, Wis., and widely known in every part of the State as an efficient institute conductor, has tendered his resignation of the position he has so ably filled, and has accepted the offer of the American Missionary Association to take the superintendency of the educational work of that society in the Southern States. Wisconsin thus loses one of the ablest from its corps of teachers.

The public school building being built by the Pennsylvania Steel Co., at their own expense, it is said, will be one of the finest in the State. The extensive works of this company are located in Dauphin Co., three miles from Harrisburg. The town, appropriately named Steelton, is growing rapidly.

At present there are 188 boys and 96 girls in the Indian school at Carlisle, Penn. Captain Pratt, who has charge of the institution, makes a favorable report of their condition. The school is industrial as well as educational. Last year the goods manufactured by the pupils were sold for \$6,333. These schools may lead to a solution of the Indian question in time.

The endowment fund of Bowdoin College is now \$300,000. Its surplus last year was \$2,188.

The Ann Arbor School of Music has been established in connection with the University of Michigan.

Since the introduction of the system of self-government at Amherst, the average scholarship of the college is said to be much higher than formerly.

Mr. George I. Seney has given another check for \$25,000 to the Wesleyan Female College, Georgia, making in all \$125,000 from him to that institution.

Mrs. Garfield has been appointed one of the trustees of Hiram College, in Ohio, the institution where her husband was student and president, and in which he always manifested great interest.

Middlebury College, Vt., has had a present of a silver mine. Col. Comins of Winnemucca, Nev., has conveyed to the college the Rose Creek silver mine, which is in the Sierra mining district. The present value of the mine is stated at \$30,000, but there is no telling what it may be worth when developed. The condition attached to the gift is that the proceeds shall be used to build a hall of science to bear the donor's name.

A committee of civil service reformers, headed by Charles Francis Adams, Jr., Paul A. Chadbourne, President Eliot of Harvard, and other noted men, have issued a circular from Boston, urging the people to make the question a live issue this fall, and withhold their votes from candidates not pledged to the cause.

Senator Brown has given \$50,000 to the State University at Athens, Ga. The interest of the money is to be used for the education of poor young men.

One-fifth of the population of Delaware are negroes, and they have raised two-thirds of the money necessary to support their forty public schools.

Portland City (Maine) Government and School Board has voted to furnish readers free to all their schools.

The public schools of Great Britain have prescribed the use of "Robinson Crusoe" among other books of travel and voyage.

Col. Ralph Plumb of Streator, Ill., recently gave to that town a fully equipped high-school building, costing about \$40,000. A dedicatory address was made by Governor Cullom.

Hon. B. G. Northrop, Secretary of the Connecticut State Board of Education, on resigning his office this summer, found himself confronted with some very unkind criticisms of his management thereof. But the commission appointed to investigate his affairs find that although there has been some carelessness and disregard of the restrictions of the school law, there has been apparently no intentional dishonesty or fraud.—*Exchange*.

Supt. Northrop has since been urgently solicited to recall his resignation and resume

his position at the head of the Connecticut schools. He has, however, concluded to devote himself to his chosen task of spreading the principles of the societies for the improvement and adornment of village and town surroundings.

The following, from the New York *Journal of Education*, should be a wholesome lecture to those wiseacre members of our California school boards who believe that when they pay their principals a paltry \$1,500, \$1,800, \$2,100 per year, they are exceedingly liberal and gracious. Shame! we say, on a press and public, which with so much braggadocio, falls so far below the following:

The New York Board of Education met Oct. 4th.

The items of annual expenditure noted in the last *Journal* were approved—the entire amount is \$4,000,300. (This is for the instruction, etc., of 116,000 pupils, daily attendance.) The salary of Mr. L. D. Kiernan, Clerk of the Board, was increased from \$4,500 to \$6,000, that of Auditor Davenport from \$4,500 to \$5,500, and that of President Hunter, of the Normal College, from \$6,000 to \$7,500. (This is all right. Now let them advance the \$3,000 principals to \$4,000, and other teachers in proportion.—ED.)

Personal.

Bret Harte is reported to be as intense an Englishman as can be met in London. He wears the typical eyeglass, has white hair and a red face, and talks of his friends the earls and marquises, and of the magazine he is about to start.

Prof. William Stanley Jevons, the well-known author of politico-economical and logical treatises, was drowned while bathing at Bexhill, England, Aug. 15th.

Hanover College, Indiana, has conferred the honorary title, LL. D., on Miss Maria Mitchell, Professor of High Mathematics and Astronomy in Vassar College. Probably the first woman on whom that title has been conferred.

After filling a Greek chair in Edinburgh University for thirty years, Prof. Blackie has resigned it.

Louis Philippe's great grandson, the Duc d'Orleans, aged thirteen, has just taken the prize at the annual competition of the Paris colleges for Latin composition.

It is proposed to start a penny subscription from readers of "Robinson Crusoe," for the benefit of a great grandson of Daniel De Foe, long in poverty in England.

The Professor of Greek in the University of Des Moines, Miss Lena Gall, M. A., has been elected to fill the same place in the Central University of Iowa.

The Royal Agricultural Society has elected Miss E. A. Ormerod, who has given years to the study of insects injurious to agriculture, as consulting entomologist.

Herbert Spencer is traveling in the Catskills with his assistant of twelve years' standing. If he wants no one to know exactly where, he should not register as "Mr. Lott and friend," as he does.

The United States government has appointed President Welch, of the Iowa State Agricultural College, to go to Europe to report upon the industrial and agricultural schools of Great Britain, France, Germany, and Italy; and Mrs. Welch will remain at the head of the experimental kitchen of the Iowa College till November, when she will visit the South Kensington Cooking School.

Prof. Mommsen was tendered a great ovation by the students of all the departments of the University of Berlin, to celebrate his acquittal from the charges of libel brought against him by Prince Bismarck.

Elizabeth C. Agassiz, Joseph B. Warner, Arthur Gilman, Stella S. Gilman, Jane B. and Mary B. Greenough, and Alice Longfellow are the officers of the Society for the Collegiate Instruction of Women that has just been incorporated for the purpose of promoting the education of women.

General Notes.

Recent observations on light conducted on the summit of Mount Whitney yield the curious result that the sun is in reality of a bright blue color, and would so appear to the eye were it not for the filtration of the light rays through our atmosphere, which, by its different action on the various rays, finally blends them into white light.

In what geologists call the "mesophytic" epoch the climate of the North Pole was the same as then existed in Central Europe, and that what we would now call sub-tropical. Nordenskjold brought specimens of palms from 78 degrees north latitude, besides many other remains of the flora of a hot climate. It is not easy to understand how evergreen trees (*Lepidodendra*) and those with large leaves (*Cardiopteris*) could thrive in the prolonged darkness of the polar night, even with a high temperature.

A comet, apparently new, has been seen, for a month past, near the sun. It is low down in the east, from ten to fifteen degrees above the horizon, and on a clear morning is distinctly visible about 5 A. M. It rises tail first in advance of the sun. The nucleus seems larger than a star of the first magnitude, and almost as bright. The tail appears short and thick, inclining to the south. It is a very interesting object in the morning sky, and a strong inducement for early rising. About October 6th, the tail and nucleus both,

under the glasses of the telescope, presented the extraordinary appearance of splitting up into three sections. There seems to be a space of from 2,000 to 3,000 miles between the divisions. This, of course, is not visible to the naked eye.

The blue of the sky and the bluish tinge of distant objects has been shown to be owing to fine bubbles of water in the air. The more delicate the walls of these hollow spheres the clearer and deeper is the blue; as they condense, their hue shades off more to the gray and white, as seen finally in the clouds. Hence, in warm and dry regions, the blue of the sky is more intense; in cool and moist ones less so; and on considerable elevations the heavens look almost black, and the stars are visible at midday.

The relation which the color of flowers and fruits bear to their methods of distribution is a curious branch of botanical study. It appears that in the struggle for existence during a long series of generations, those seeds and fruits that have a tendency to succulence and color are most attractive to birds,

and that these tendencies are intensified by inheritance and natural selection. It is also found that in those fruits that are distributed by mechanical agencies there is a suppression both of color and succulence.

Designs have been sent in for a statue of Abraham Lincoln, to be erected in Lincoln Park, Chicago. The money for the erection of this statue, \$30,000, was given by the late Eli Bates of that city.

A fine estate of 200 acres, in Bennington, Vermont, called the "Hunt Place," is to be given by Trenor W. Park for a home for aged women and destitute children, together with an endowment of \$500,000.

The coffee crop of Hayti is less than a two-thirds yield, and the quality is poor. A brilliant comet is now visible on this island, which can be seen until 10 o'clock A. M. The people are awe-stricken, and think the end of the world is approaching. It is a bad omen to them, as after the appearance of the last comet 60,000 persons died of small-pox.

EXAMINATION QUESTIONS.

GRAMMAR. (The Normal Teacher.)

1. What is the difference between a verb and a participle?

2. Do intransitive verbs have voice? Give the passive form to the following: "Passions and prejudices lead men astray."

3. State the difference between a sentence and a paragraph.

4. Parse *what* in the following sentence: "Be what you would seem."

5. What two distinct offices are performed by the relative pronoun?

6. Correct the following sentences, and give the reasons for each correction: "They are these kind of goods which Horace mentions." "The poor girl feels very badly about it."

7. Analyze the following: "Not as the conqueror comes, they, the true-hearted, came."

8. What are the principal parts of a verb?

9. Parse *being captured* in the following sentence: "They did not think of being captured."

10. Rewrite the following selection, re-

storing capitals and punctuation marks: Whatever happens exclaims Elizabeth I am the wife of the prince of Spain crown rank life all shall go before I take any other husband.

GEOGRAPHY. (The Normal Teacher.)

1. Which is the larger, Europe or North America? How does Europe compare in size and population to Asia?

2. Define an estuary; an archipelago; a delta; an oasis; a valley.

3. Name the mountain systems of North America. Define a mountain system.

4. Name and give the length of three principal rivers in South America; one in Asia; one in Europe.

5. Describe Newfoundland. For what is it noted?

6. Describe the surface of California. The climate.

7. How are the British Provinces of North America divided? Describe the government of these provinces.

8. What are whirlwinds? Waterspouts?

9. What are perennial springs? Intermittent?

10. Where is the great plain of North America? What are the principal plains of Africa?

The following sets were among the questions given to the graduating class of the Pennsylvania State Normal School, at Millersville, and copied by us from the October *Penn. School Journal*:

ORTHOGRAPHY.

Embellish, separate, privilege, aristocracy, nutritious, beauteous, duteous, tension, syntactical, bayonet, irrefragable, pewter, parishioner, until, reciprocity, moneys, virtually, deferred, dulcimer, eligible, using, isinglass, Euroclydon, detrimental, hazardous, intelligent, allopathy, prothonotary, tremendous, solstitial, bonfire, sinecure, reprehensible, mysterious, knoll, nocturnal, knobby, italicized, isosceles, recommend, fac-simile, movable, trafficked, tremulous, tragedian, tragedienne, towpath, terrace, gamy, coalition.

LITERATURE.

The poem by Bret Harte, entitled "Dickens in Camp," was given to the class, with the following questions:

1. What does the subject mean?
2. Paraphrase each stanza, beginning with the first, and proceeding in order given.
3. Write three sentences of the poem that are to be understood literally, and three figuratively.

RHETORIC.

1. What is the difference between Rhetoric and Grammar?
2. What is Style?
3. What is Purity of Diction?
4. State four ways in which Purity of Diction is violated.
5. What is Simplicity of Diction?
6. State three ways in which Simplicity of Diction is violated.
7. What is Figurative Expression?
8. Define six of the principal Figures of Speech, and give illustrations of each.
9. Name and define four kinds of Poetry.
10. Blank verse { 1. Define.
2. Advantages over Rhyme.
3. Examples.

ARITHMETIC.

1. Define composite number, concrete number, least common multiple, cancellation.

2. Find G. C. D. of 392, 448, and 504 by two methods.

3. In what particulars do compound numbers differ from simple, and in what are they alike?

4. Explain how you would find the interest on a sum of money for 3 years, 5 months, and 5 days, at any rate per cent., by two methods.

5. If I buy goods at 16 cents, how must I mark them in order that I may fall 11 1-9 per cent. from marked price, and still gain 25 per cent.?

6. I send my agent \$5,000 to invest in coffee, commission $2\frac{1}{2}$ per cent. Coffee having advanced 5 per cent., I intrust him to sell and invest proceeds in Philadelphia 6's at $103\frac{3}{4}$, brokerage $\frac{1}{4}$ per cent. How many shares, and what surplus?

7. Develop rule for sum of series in arithmetical progression.

Write the analysis of the following:

8. When eggs are worth $\frac{2}{5}$ per doz., how many will it take to buy 8 bu. potatoes worth $\frac{5}{8}$ per bu.?

9. One-half the difference between two numbers is 6, $\frac{1}{6}$ of the first number equals $\frac{1}{4}$ of the second; required the numbers.

10. If a man can dig 15 bu. potatoes a day, and can pick up 10 bu. a day, how many can he dig and pick up in one day?

CONSTITUTION OF U. S.

1. How is the President of the United States elected? If the President and Vice-President should resign or be removed from office, who should succeed to the presidency?

2. What bills must originate in the House? Why? In what ways may a bill become a law without the President's signature?

3. How may members of the Legislative Department be removed? Members of the Executive and Judicial Departments?

HISTORY.

1. Name and describe the different forms of government during the Colonial period.

2. Give a brief account of the battles of the Revolution fought previous to the adoption of the Declaration of Independence.

3. Discuss three important events of Monroe's administration.

4. Name five Union generals, and some important engagement in which each participated.

5. What difficulties did Andrew Johnson have with Congress?

6. Give the biography of two noted Americans.

NATURAL PHILOSOPHY.

1. Define *mass*, *atom*, *molecule*, *annealing*, *crystallization*.

2. Distinguish between the physical and the chemical properties of matter.

3. Explain *capillary attraction*.

4. Explain the Hydrometer.

5. Give the laws of Refraction of Light.

6. Explain the action of the eye, and name its parts.

BOTANY.

1. Name and define the departments of botany.

2. How are plants distinguished as to their term of life? Give examples.

3. The plan of the flower.

4. Explain the process of germination.

5. The leaf.

GEOMETRY.

1. Define a plane; a right angle; a perpendicular; vertical angles.

2. Define a postulate; a corollary; a scholium; a demonstration.

3. Define a trapezoid; a quadrilateral; a rhombus; a rectangle.

4. Prove that two right-angled triangles are equal when the hypotenuse and an acute angle of the one are equal to the hypotenuse and acute angle of the other.

5. Write the propositions relating to the measurement of angles.

6. If from any point in the base of an isosceles triangle parallels to the equal sides be drawn, show that a parallelogram is formed whose perimeter is equal to the equal sides of a triangle.

7. Show that the side of a circumscribed equilateral triangle is double the side of an inscribed equilateral triangle.

8. BAC is a triangle having the angle B double the angle A . If BD bisects the angle and meet AC in D , show that BD is equal to AD .

9. In any triangle the square on the side opposite an acute angle equals what? Demonstrate.

10. If $A : B :: C : D$, and $B : D :: m : n$, prove that $A - m : A + m :: C - n : C + n$.

ALGEBRA.

1. Give the symbols of operation, and tell what each shows.

2. Multiply $a^2 - xa$ by $a^2 - x \cdot a$. Reduce the result to its simplest form, and explain.

3. Factor $x^2a - 4xa - 45$. Tell when and how a trinomial may be factored.

4. Given $\frac{x+3}{2} - \frac{x-2}{3} = \frac{3x-5}{12} + \frac{1}{4}$ to find x .

Solve and give the reason for each step.

5. Given $\frac{x+1}{y-1} - \frac{x-1}{y} = \frac{6}{y}$ and $x - y + 1$ to find x and y . Name the three methods of elimination, and tell which you use in your work.

6. Given $(x^2 - 4x + 5)^2 + 4x^2 = 16x - 8$, to find x .

7. A square tract of land contained one-fourth as many acres as there were rods in the fence surrounding it; required the length of the fence. State and explain the statement.

METHODS OF TEACHING.

1. Define the school-time of life, and the order of instruction adapted to its various periods.

2. Give a proper course of instruction in Primary Grammar.

3. What do you understand by the mental, vocal, and physical elements in reading?

MENTAL SCIENCE.

1. Discuss Mental Science as related to the art of teaching.

2. How may the imagination be improved and strengthened?

3. Explain the different kinds of reasoning.

4. May a weak mind possess a strong memory?

BOOK NOTICES.

BOOKS RECEIVED FOR REVIEW.

The Modern Readers. In four books (well illustrated). By H. I. Gourley and J. N. Hunt. Pittsburgh: H. I. Gourley.

The Elements of Physics. By A. P. Gage, Instructor in Physics in English High School, Boston. Ginn, Heath & Co., Boston.

Berger's New Method to learn French. By F. Berger, Consul-General. New York: D. Appleton & Co. San Francisco: J. T. White & Co.

English Literature Lessons. From the time of the Celts to the Present Day. Round-Table Series. In twenty-five numbers. By Kate Sanborn. Boston: J. R. Osgood & Co. San Francisco: A. L. Bancroft & Co. Price, 25 cents each number.

This is, at last, the open sesame to an intelligent and profitable study of English literature. In our January issue a full review will appear.

THE FRANKLIN SQUARE LIBRARY.

The Great Diamonds of the World. Their History and Romance. By E. W. Streeter. Price, 20 cents.

Flower and Weed. A novel. By Miss Braddon. Price, 10 cents. For sale by A. L. Bancroft & Co.

We have received the two latest issues of the Franklin Square Library. Our readers may not be aware that this library is now published weekly, at the almost nominal price of \$10 a year. For this small sum the purchaser finds himself in possession of a small library at the end of the twelve months.

BOOKS FOR HOLIDAY GIFTS

AND FOR SCHOOL LIBRARIES.

Home Life in the Bible. Henrietta Lee Palmer-James. For sale by Billings, Harbourne & Co. Price, \$3.50.

This is a beautiful and appropriate book for the holiday season. No better Christmas present for the mother of the family could be selected than this. The imprint of J. R. Osgood & Co. is sufficient guaranty for

beauty of illustration and general excellence of mechanical finish. From the text a clear and accurate idea may be gathered of home life in Bible lands and in Bible times. It is a knowledge interesting not merely in itself, but invaluable to every one who wishes an intelligible key wherewith to comprehend the story of the Scripture. We believe this book will have a large and widely extended circulation.

Building the Nation (illustrated). By Charles Carleton Coffin. New York: Harper & Bros. San Francisco: A. L. Bancroft & Co. Price, \$3.

Here, told in Coffin's inimitable style, with ample and varied illustration, we have a charming history of our country. It is taken up where Mr. Coffin has dropped the thread in "The Boys of '76"; and the thousands of young readers whose cheeks flamed up with excitement, and whose hearts warmed with the glow of patriotism inspired by the recital of the deeds and sufferings of the boys and men of the Revolution, will find in this sequel added charms and even more inspiriting emotions. Mr. Coffin understands well how to write real history. We have no hesitation in saying that our youth will get a fuller, broader knowledge of our country's history—of the very marrow of history—by reading these pages, than in any amount of memorizing of dates and events and names; in fact, the entire mastery of synoptical outlines or school histories.

This is the best Christmas present a parent or friend can make the boys and girls of a family.

The "Golden Floral." A series of eight beautifully illustrated books, consisting of Ring out, Wild Bells, by Alfred Ten-nyson; He Giveth his Beloved Sleep, by Elizabeth Barrett Browning; Abide With Me, by Henry Francis Lyte; Rock of Ages, by Augustus Montague Toplady; Home Sweet Home, by John Howard Payne; The Breaking Waves Dashed High, by Mrs. Felicia Hemans; Nearer, my God, to Thee, by Sarah Flower Adams; O, Why Should the Spirit of Mortal be Proud? by William Knox—all illustrated

by Miss L. B. Humphrey. For sale by all booksellers.

Messrs. Lee & Shepard have this season published these eight Household Favorites in what they happily term the "Golden Floral" style—a style which is not only entirely novel in character, but immensely captivating to the eye. Nothing like it has ever before been attempted by the book-publishers; and it is not too much to say that this attempt—a perfect success as it would seem—will henceforth have many imitators. The purpose of the publishers in bringing out this new style of binding was to combine the attractions of a favorite illustrated poem with the popular charms of a Christmas card. Not a cheap, inartistic Christmas card, by any means, but one of the highest grade and thoroughly refined and tasteful in design, was what was demanded of the artists. The plan, as developed in full, cannot fail to delight the most exacting person. Each book has a cover, upon which is wrought the most exquisite floral design upon a gold ground; and each one of these designs has been chosen so as to be in perfect harmony and symbolism with the spirit of the poem. The edges of the cover are ornamented with heavy silk fringe, thus enhancing the beauty and finish of the book. As a souvenir for holidays, birthdays, Easter, or weddings, a single volume, or better, a full set, of Golden Floral series, is certainly the most chaste, elegant, and unique.

Without further encomium we will say that never before have these beautiful poetic gems had so lovely, so appropriate a setting. A Christmas present more admirable and more in taste could not possibly be selected.

LITERARY NOTES.

The Wheelman is an octavo magazine, containing eighty pages, and is beautifully printed on toned paper. In the table of contents we notice contributions by well-known bicyclists of England and America. *The Wheelman*, as a bicycling magazine, is a success. Its beautiful illustrations and the excellence of its contributed articles give it rank among the first-class literary magazines of the country.

Among the articles in the December *Californian-Overland*, the following are especially noteworthy: The Bancroft Historical Library, by Frances Fuller Victor; Wandering Joe, by Y. H. Addis; By Stage

and Rail, by Warren Cheney; Four Faces, by Gregory Mitchell; The Face in the Picture, by Emily Browne Powell; Carlo Goldoni, by Charlotte Adams; Simon Kingley of San Minetos, by L. J. Dakin; In Arcadia, by J. P. Widney.

A RELIGIOUS NEWSPAPER.—We desire to call the attention of our readers to one of the largest, ablest, and most popular religious newspapers published—one that secures the best writers in this country and Europe, regardless of expense; has the best and fullest book reviews of any paper in the country; has able articles upon financial and commercial subjects; has departments edited by specialists, and devoted to fine arts, music, science, religious intelligence, missions, school and college, news of the week, hymn notes, the Sunday-school, legal and sanitary questions, Biblical research (something that cannot be found in any other newspaper in the United States), farm and garden, insurance, weekly market reports, etc.: in fact, a newspaper which, with its twenty-two departments, is suited to the requirements of every family, containing a fund of information which cannot be had in any other shape, and having a wide circulation all over the country and Europe. We refer to *The Independent* of New York, now called "The largest, the ablest, the best." Send a postal card for free specimen copy.

Among other interesting papers, we note the following in the December number of *Lippincott's Magazine*: The Island of Manisees, by Charles Burr Todd, illustrated; A Relic, by Robertson Trowbridge; Fairy Gold (a story), concluded, by the author of A Lesson in Love, illustrated; Felix Mendelssohn, by Edwin D. Mead; Newburgh and its Centennial; Decker's Second Wife (a story), by Charles Dunning; The Earlier and Later Work of Mr. Howells; Mrs. Gallup Entertains a Friend at Tea, by Edward I. Stevenson; A Day in Coyoteville, by Laura Wells Morse; Our Monthly Gossip.

Every succeeding number of *Harper's Magazine* seems more beautiful than the last, and we wonder where it will all end. In this December issue our space will permit us to name only a few papers. The Columbia River, by Cleveland Rockwell, illustrated; William Black at Home, by Joseph Hatton, illustrated; Found Drowned (a poem), by Dinah Mulock Craik, illustrated; The Great Seaport of Western France, by Thomas W. Knox, illustrated; Southern California (III.), by William Henry Bishop, illustrated; The Singular Vote of Aut Tilbox, illustrated; Storing Electricity, by Henry Morton, illustrated; For the Major (a novel), by Constance Fenimore Woolson, illustrated; Among the Rose-roots (a story), by A Working Girl; New England in the Colonial Period, by John Fiske; Shandou Bells (a novel), by William Black, illustrated.

The Christmas *St. Nicholas* comes laden with its seasonable freight of mirth and good cheer; and chiefest among its special features is a Christmas story, by Louisa M. Alcott, entitled Grandmamma's Pearls. There is a graphic account of a long dog.

sledge journey on Lake Winnipeg, capitally illustrated by Farny; a Christmas poem by Nora Perry; and a clever short story, *The Christmas Fairies*, that is a true story as well. Malcom Douglass contributes a pathetic little Christmas tale; and two pages are given to the words and music of a simple but tuneful Christmas Carol.

There is next, *The Story of the Field of the Cloth of Gold*, a charming tale, weaving in most delightfully the principal incidents of the famous meeting of the Kings in the Golden Valley. Mary and her Garden, a six-page poem, written by Eva L. Ogden, engrossed and beautifully illustrated by Alfred Brennan, which deals with some little-known adventures of contrary Miss Mary. An amusing Alphabet of Children, with a jingle and a picture for each letter. A quaint and highly original fairy tale, by Frank R. Stockton, who also contributes another installment of *The Story of Viteau*. J. T. Trowbridge's serial, *The Tinkham Brothers' Tide-mill*, is also continued, with three chapters of accumulating interest. In addition to all this is an article on Whale-hunting in Japan, by William Elliot Griffis, and the Discovery of the Mammoth, by C. F. Holder, with a startling picture by James C. Beard.

The entire number, including the "Departments," is copiously and handsomely illustrated by the cleverest designers for children.

Variety and freshness of illustrations and literary features are claimed for the December *Century*. John Marshall, the Great Chief-Justice, is the subject of the frontispiece, which, with character sketches and many portraits, belongs to E. V. Smalley's paper on The Supreme Court of the United States. My Adventures in Zuñi is Frank H. Cushing's first paper on the remarkable tribe of Pueblo Indians, with whom he has been living as an adopted chief for two years or more. William Elliot Griffis explains The Corean Origin of Japanese Art, and brings to the assistance of the text several striking reproductions of old Corean art. The Taxidermal Art is the subject of several beautiful engravings of mounted birds and animals; and in the text Franklin H. North writes with freshness about taxidermists and the curious features of their arts. A portrait of the late Dr. John Brown, the author of the imitable story Rab and his Friends, which includes a portrait of the mastiff Rab, and a picture of the author's study, and some amusing grotesques by Dr. Brown, illustrate a charming paper on Rab's Friend by Andrew Lang.

Something between a story and a satiric essay is Henry James, Jr.'s, Point of View, which has, as a study of American manners, even more interest than Daisy Miller. The purpose is, by a series of clever letters by Americans who have lived in Europe, and by an educated Englishman and a French academician, to show the merits and defects of American life and character as they appear from the different points of view of these critics. Professor Lounsbury, of Yale, returns to The Problem of Spelling Reform, and makes a forcible argument in favor of it; and John Burroughs talks delightfully of the "hard fare" of the birds and small animals when winter is unusually severe.

Mary Hallock Foote's serial, *The Led-Horse Claim*, advances to a strong and novel situation in mining experience, a part of the action of the story passing underground. The author's full-page illustration of Cecil in the mine, engraved by Cole, is perhaps the most striking illustration in the number. Mrs. Burnett's Through One Administration approaches the focal point of interest; and in the second part of *The Christian League of Connecticut*, the Rev. Dr. Gladden weaves practical hints for Christian co-operation into his effective New England story.

The poems of the number are by the late Sidney Lanier, Prof. Henry A. Beers, Andrew B. Saxton, L. Frank Tooker; and in "Bric-a-brac," by John Vance Cheney, J. A. Macon, H. C. Bunner, Frank Sherman, and others. Western Careers for Eastern Young Men is the leading article in "Topics of the Time," and the other departments treat a variety of timely subjects.

The *Popular Science Monthly* draws from the intellectual resources of all nations, and is now recognized as the most successful scientific periodical in the world. Appealing to no one class, it is patronized by intelligent readers of every class all over the country. It is widely taken by the cultivators of science in all branches, and by physicians, engineers, scientific farmers, and those pursuing the mechanical and manufacturing arts. Teachers, finding its discussions of the scientific principles of education invaluable, are among its most liberal supporters.

The reason of this is, that our best minds are getting tired of the shallow frivolities of sensational literature, and demands a magazine that elevates the standard of popular reading in this country. Science is the great agency of improvement in this age, private and public, individual, social, professional, and industrial. In its irresistible progress it touches everywhere, and affects everybody. It gives law to the material interests of the community, and modifies its ideas, opinions, and beliefs, so that all have an interest in being informed of its advancement. Those, therefore, who desire to know what is going on in the world of thought in these stirring times, when new knowledge is rapidly extending, and old errors are giving way, will find that they can only keep informed by subscribing for the *Popular Science Monthly*.

The *Atlantic Monthly* for 1883 will contain, in addition to its usual variety of serial and short stories, essays, sketches, poetry, and criticism, the following specially attractive features: Oliver Wendell Holmes, author of *The Autocrat of the Breakfast-table*, etc., whose imitable series of "Breakfast-table" papers, poems, and essays has been so conspicuous and delightful a feature of the magazine, will write frequently and exclusively for the *Atlantic*. Henry Wadsworth Longfellow left a completed dramatic poem, entitled *Michael Angelo*, which he was more than ten years in writing. The first installment of the poem, which is in three parts, will appear in the January number.

Nathaniel Hawthorne left among his manuscripts the plan and sketches of a novel, which will appear

the *Atlantic* under the title, The Ancestral Footstep : Outlines of an English Romance. The first portion appears in the December number, with an introduction by Mr. George P. Lathrop. It will be continued in the earlier numbers of 1883. Mr. Henry James, Jr., author of the Portrait of a Lady, will contribute to the first volume of the year Daisy Miller : A Comedy—a dramatization by Mr. James of his story Daisy Miller, which has had so great a popularity in England and America. New characters and situations and incidents are introduced ; the entire story is recast and rewritten, so as to render it more dramatic; and yet the features which made

the story as originally told so attractive are all retained. Mr. James will also write for the *Atlantic* some critical and literary papers, such as the readers of the magazine have heretofore found so admirable.

Mr. W. D. Howells, author of Their Wedding Journey, etc., whose stories and essays have so often delighted the readers of the *Atlantic*, will from time to time send to the magazine from Europe sketches of travel, character, and literature. Mr. Charles Dudley Warner, author of My Winter on the Nile, My Summer in a Garden, Backlog Studies, etc., promises several papers for the coming year.

THE PUPILS' CORNER.

THIS department, which will consist of new, and in many cases original, declamations, poems, dialogues, music, and games, suitable for Friday afternoon exercises, will be under the editorial charge of MRS. ALICE LYSER. Teachers who have matter for the department, or suggestions in regard to it, are solicited to send communications to her address at this office.

CHARADE—DENMARK.

FIRST SCENE : DEN.

Three little boys, Henry, Tim, and Ned ; two little girls, Annie and Florry. Playthings are strewn over the floor, and the chairs are in the middle of the room.

H.—Let's have a menagerie.

T.—Well, let's. I want to be the lion.

N.—I want to be the monkey.

H.—I'll be the keeper, and the girls can be the people.

F.—I never heard of a menagerie with only a lion and a monkey.

A.—No, nor I. Not even an elephant.

H.—Well, we can play all the chairs are cages, with hippopotamuses, anacondas, ostriches, and such things in them ; but we will only exhibit the lion and the monkey, because they are the noblest and knowingest animals. The lion is the King of Beasts, ladies and gentlemen.

F.—I think it would be a great deal nicer to play you were in the country where lions live, and go and fight one in his own house—hole, I mean.

A.—Lair is what they call it in the picture books.

T.—That isn't what the Bible says. It doesn't say, " Daniel in the lion's lair."

A.—Well, it means that just the same.

H.—Well, you will live under the table, Tim ; that will be your house—hole—lair, and we will come to hunt you out.

Tim gets out of sight under the table, which is covered with a large cloth, and Henry and Ned get sticks to begin the attack. As soon as they approach the table, a frightful roaring is heard underneath. This increases when they thrust in their weapons. The lion being hard pressed, finally crawls off with his den, which, being light, runs easily on castors.

SECOND SCENE : MARK.

Characters : The same as those of the first scene. Tim has a white mark on the shoulder of his jacket.

F.—What is the matter with your jacket, Tim ?

A.—Yes, there's a long white streak on the shoulder of it.

T.—Is there? I hope it will come off. It is my new jacket.

F.—I don't see how it came there. Was there anything white under the table, Henry?

H.—No, I guess not [Florry and Annie rub at the spot, and it begins to disappear].

A.—It looks like chalk. What were those sticks you had to hunt the lion with?

H.—I had the yard stick.

N.—I had that long thing they push the bagatelle balls with.

H.—O yes, I know now. I chalked the bagatelle stick last night the way I saw Uncle Sam chalking his billiard cue; but I made a mistake, I did it all over the big end.

A.—Now, Henry! What a caper! Ned must have punched your shoulder well with it, Tim.

T.—Yes, he did; and that was the reason I went off with my lair, as you call it.

F.—Do get a brush, Henry. It won't all come off with our hands.

Henry brings the brush, and the girls work away till the mark disappears.

THIRD SCENE: WHOLE WORLD.

Characters the same as those of the first and second scenes.

A.—Now let's put the room in order before mamma comes home, and then read a nice story.

F.—Yes, do.

H.—You can put the room in order if you want to; we boys are going out.

A.—Ain't you ashamed, Henry!

H.—Ye-es, a little. Come, boys, let's help them half a minute, and then skitter.

F.—Tim won't skitter till we are all to rights, for he has promised to be a gentleman, "always, everywhere."

T.—Now, Florry! That's a secret.

A.—O you can't keep it a secret! We've found you out. I know two or three nice things you have done. Who lent his Andersen story-book to a sick boy before he had read them all himself?

T.—Ain't they nice, though, Annie? Mustn't that be a strange old town where he lived, and what was the name of that queer funeral thing he slept on when he was little? Cata-something.

A.—Catafalque. I had to get mamma to say it over to me two or three times. I looked out his country on the map, too.

T.—So did we. The capital has the same name as that game that we play with a rope ring.

F.—Yes, and I can't bear it. I mean the game; I guess the city is nice.

A.—O, its beautiful! Uncle Charley has been there, and he told me about it.

H.—It's a gay country, isn't it? the hookedest peninsula and little splinters of islands. Uncle Charly says it was way up there on the biggest island that Hamlet lived.

T.—Who was Hamlet?

H.—Why he was the Prince, and his father was the King, and his uncle poured something out of a sewing-machine oiler into his father's ear and killed him; and then he married the Queen so as to be King himself, and then the right King's ghost came stalking around at midnight and told on him, and made Prince Hamlet feel so awful he didn't know whether "to be or not to be."

A.—O, Henry! I don't believe they had sewing machines then; it was ages ago. That was a burlesque you saw Uncle Charley and the rest of them doing.

N.—What's a burnesk?

A.—Burlesque, it is. It's when they make fun of something that was grand in the first place.

H.—Come, boys, let's go out.

T.—Won't you come too, girls, and we'll play hunkey-dee,

N.—O yes, come on!



